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LECTURES
ON THE
THEORY AND PRACTICE OF MEDICINE;
NOW IN COURSE OF DELIVERY AT THE THEATRE OF ANATOMY AND MEDICINE, WEBB-STREET, SOUTHWARK.
BY
MARSHALL HALL, M.D., F.R.S. L. & E.
&c., &c.

DISEASES OF THE RESPIRATORY SYSTEM:—*Inflammation of the epiglottis; cases from Sir Everard Home. Bronchitis; history, symptoms, and treatment of the disease. Species of bronchitis. Influenza. Pneumonia, its history and symptoms; the treatment. Bronchial and pulmonary hæmorrhage. Pleuritis and gangrene of the lungs.*

GENTLEMEN:—At the close of my last lecture I drew your attention to a disease little known, and probably not so unfrequent in occurrence as is supposed, viz.—*inflammation of the epiglottis.* This affection is apt to be superadded as a complication in laryngitis, as I have already stated; but it may exist *alone*, as in the following cases, abstracted from Sir Everard Home's account already quoted:—

CASE 1.—A man, forty years of age, rather short, of a stout make, with a tendency to corpulency, and of sedentary habits of life, was exposed in December, 1789, to the rain during a very tempestuous evening. In the course of the night, while in bed, he felt very uneasy in his throat, and was unable to swallow. The uneasiness increased, and everything he attempted to swallow was immediately rejected with considerable force.

Upon examining the throat, there was *no* appearance of swelling in the *tonsils*, nor of inflammation of the *palatum molle*, or *uvula*; these parts were not even more red than they usually are. But immediately beyond the root of the tongue there was a rounded projecting substance, of a bright-red colour, bearing a very close resemblance to the glans penis in its distended state. At first, I was at a loss to know what this could be, but on examining it more narrowly, I found that it was the epiglottis much enlarged, the membrane which covers it being inflamed and thickened. It continued for three days in this state, and the patient could not swallow during that period, but there was no sensation of thirst. Leeches were applied to the outside of the throat, and immediately gave some relief. The warm bath was used, but without any apparent advantage. Dover's powder was administered by clyster, but did not bring on perspiration, or soothe the distressing symptoms. The inflammation subsided gradually, and on the fourth day he could swallow fluids, when his thirst became excessive. On the seventh day he could take his food as usual. During the whole of the attack his breathing was not at all affected. The parts recovered so entirely that he never afterwards had any return of the complaint, or uneasiness in the part which had been affected.

CASE 2.—An officer in the Army, about twenty-five years of age, had an affection of the throat, which was supposed to be venereal. He was, therefore, put upon a course of mercury, but the throat did not recover its healthy state. Under these circumstances I was consulted. On examining the throat a slight degree of inflammation was observed over the whole fauces; the tonsils were not enlarged, but the epiglottis was very distinctly seen. It was neither so tumid, nor of so bright a red colour as that described in the former case, and of course, did not produce the same symptoms. He complained chiefly of uneasiness in swallowing. There being no reason to consider the present appearances as connected with the venereal disease, the patient was desired to desist from the use of mercury; but as his health was very much impaired, and as he had a cough and a pain in the side, I recommended his consulting his physician, Dr. Hunter, who took charge of these complaints. I believe he went to a warmer climate, and died from an increase of the affection of his lungs.

CASE 3.—H. O., aged thirty-two, a strong and muscular man, of a full habit and florid countenance, in November, 1800, caught a

severe cold, which lasted several weeks, and was succeeded by inflammation and ulceration in both tonsils, which symptoms not yielding to the common remedies, were suspected to be venereal. Recourse was, therefore had to mercury in the form of ointment. His mouth became affected in about ten days after he began using the mercury, but the symptoms were aggravated. He lost his voice, and had great difficulty in swallowing either solids or fluids; during sleep his breathing was so uneasy that he frequently awoke in a convulsive start. I was at this time consulted as to the propriety of continuing the mercurial course. Upon examining the throat, the tonsils and uvula were found to be inflamed and slightly ulcerated, being very much, as I understood, in the same state as when he began the use of mercury. The most remarkable appearance was the enlargement of the epiglottis, which was similar to that described in the two former cases; not quite so great as in the first case, but greater than in the second. As he had been confined for ten days to the house, and was much lowered by the effects of the mercury, I became apprehensive lest the inflammation should spread along the internal membrane of the trachea, and be continued into the lungs, and the case prove fatal. I therefore requested that I might meet Dr. Baillie and Mr. Cline in consultation. To both these gentlemen the appearance of the epiglottis was new. They both agreed with me in opinion that the mercury should be no longer used. The patient was directed to go into a salt water bath of the temperature of ninety-six degrees of Fahrenheit's thermometer, and remain in it for half an hour every other day; to drink a quart of the decoction of sarsaparilla daily, and to take gentle exercise on horseback. In ten days, while pursuing this plan, he was so much better that he could swallow his food with tolerable ease, and sleep without the least disturbance. The epiglottis was also found much diminished in size. In ten days more, the symptoms were abated in a greater degree; but his voice was still affected. The warm bath was now only used occasionally, and he left off taking the decoction of sarsaparilla. From this period he may be considered to have got well of the disease; but in 1807, when I saw him last, the epiglottis continued so much enlarged, that it could be seen by looking down the throat, and his voice had never recovered its natural clearness. I am informed by a medical gentleman who has seen the patient very lately, that he is still in nearly the same state, and that when he catches cold, to which he is very liable during the winter season, the epiglottis becomes more enlarged and produces an uneasiness in swallowing; but that this is always removed by going two or three times into a tepid salt water bath.

I now bring before you a much more frequent disease, viz.,

III.—Bronchitis.

1. *The History.*—This disease usually succeeds to exposure to damp and cold. There is generally, at first, a state of coryza affecting the eyes and nostrils.

2. *The Symptoms.*—In the *mucous* form of the disease, there is a sense of irritation about the larynx and bronchia, with a dry, harsh cough; afterwards there is considerable expectoration, raised by fits of coughing; this is at first pituitous, sometimes mingled with black pulmonary matter, and afterwards, still more copious, viscid, opaque, yellowish, or greenish, and perhaps striated with blood; there is pain more or less diffused over the chest.

The thorax sounds well on percussion.

The degree and extent of the disease are readily ascertained by the stethoscope, being denoted by the kind and diffusion of the bronchial rattles, which pass from the sonorous to the mucous; and by the temporary diminution or partial suspension of the respiratory murmur, by the obstruction of a bronchial branch.

M. Louis observes, "when catarrh is accompanied by sub-crepitant rattle, this rattle is always situated, *at* the *first*, at least, at the *base* of the lungs,—that is, in a part opposed to that which is the first seat of tubercles." This is the case not only in simple catarrh, but in that form of catarrh which occurs in the course of typhus, rubeola, emphysema, &c. The fact affords a source of diagnosis between these cases and phthisis, of the utmost value.

3. *Varieties.*—Besides the ordinary forms of acute bronchitis, some writers, in their fondness for subdivisions, have enumerated the following varieties:—

1. *The Pituitous.*
2. *The Dry.*
3. *The Suffocating.*

The first and second are observed at the commencement and termination of ordinary bronchitis, and are therefore *stages*, rather than distinct forms of this disease; and the last occurs from the great extent of the disease and the accumulation of the mucous secretion, especially, but not exclusively, in infants, and in old age.

4. There is far greater susceptibility to the effects of bloodletting in bronchitis than in laryngitis or the other divisions of this sub-section.

5. *The Morbid Anatomy* consists in redness, and slight thickening of the mucous membrane of the bronchia, with accumulation of its altered secretions, which retain the mucous, or assume a puriform character, or even that of solid lymph.

6. *The Treatment* of bronchitis consists—first, in the administration of emetic and nauseating doses of ipecacuanha; and, se-

condly, in the application of leeches, fomentations, and blisters to the thorax. The bowels should also be relieved by the oleum ricini, or the enema of warm water.

General bloodletting is not, in my opinion, of great efficacy in bronchitis; nor is it well borne. In cases in which the dyspnœa is considerable, and the patient young, we may bleed once to incipient syncope, in the erect position, and judge of the effects of the remedy on the disease, and on the patient.

Squills, the balsam of copaiba, the lobelia inflata, &c., are useful auxiliary remedies.

The patient should remain in bed; the atmosphere should be maintained at a moderate temperature, and free from change or draughts, and the sole diet should be barley-water, tea, weak beef-tea, &c.

We should carefully watch for the transition of bronchitis into pneumonia.

There is a peculiar form of bronchitis, which, from its being widely epidemic, has been designated

INFLUENZA.

1. It is frequently diffused, not only over this country, but over the whole Continent.

2. It is characterised by chills, and heat of surface; by headach, by muscular debility, by aching, weary pains of the back and limbs, and, in a word, by many of the symptoms which characterise continued or remittent fever, of the nature of which it appears to partake. It is very apt to be complicated with pneumonia; and it leaves behind it an extraordinary debility.

3. It requires all the usual remedies of bronchitis, in the first stage; and, in the second, the sulphate of quinine.

IV.—Pneumonia.

1. *The History.*—The principal cause of pneumonia, like that of laryngitis, bronchitis, &c., is exposure to wet and cold. Pneumonia is very obscure in its first stage.

2. *The Symptoms* are obtuse, deep-seated pain, laboured or frequent respiration, and cough, and a *peculiar* glutinous expectoration, highly characteristic: the expectoration is frequently such, that the vessel in which it is contained may be inverted without its falling out; its colour is various, but frequently that of the rust of iron.

But the chief sources of the diagnosis are the stethoscope and percussion:—1. The *crepitant* rattle is the invariable pathognomonic sign of the period of *congestion*; its diffusion marks that of the disease; the respiration is still heard; the chest still sounds well; 2. in the stage of *hepatisation*, there is neither rattle nor respiratory murmur; there may be bronchophony when the root, or the upper, or any exterior portion of the lung is affected; and with this sign there are always bronchial respiration and cough; the sound on percussion is dull; 3. a mucous rattle marks the flow of pus into the bronchia, in the case of suppuration.

In order to assist the medical student, I have thought it well to give the following

SIGNS OF PNEUMONIA.

First Stage:—
- Chest still sonorous;
- Pain of side, if with pleuritis;
- Dyspnœa;
- Vesicular respiration becoming crepitant;
- Mucous expectoration.

Second Stage:—
- Dull sound on percussion;
- Respiration absent, or passing from the crepitant to the bronchial;
- Voice bronchial, or bronchophony;
- Expectoration yellowish, rusty, or tinged of the colour of blood; tenacious;
- Respiration loudly vesicular in the healthy lung, or healthy part of the lung;
- Posture on the back.

Latent in
- Central } pneumonia.
- Lobular }

3. *The Complications.*—The brain and its membranes are frequently congested in pneumonia, and there may be delirium or coma; the latter symptom frequently leads to a fatal termination in persons of advanced age.

4. *The Morbid Anatomy* consists of
- *a.* Mere Congestion;
- *b.* Red Hepatisation;
- *c.* Grey Hepatisation, or Purulent Infiltration;
- *d.* Abscess;
- *e.* Gangrene.

In the first of these there is much exudation of the spumous fluid on incision, but no softening; in the second and third, there is much softening of the tissues of the lungs; this is so great, indeed, that the pressure of the finger has frequently produced an appearance, in the third case, which has been mistaken for abscess. Real abscess and gangrene of the lung are extremely rare.

The disease may be circumscribed or diffused; it is frequently confined to a lobe, to the root of the lung, to lobules, &c.

During the resolution of pneumonia, the symptoms cease in an inverted order: the sound yielded on percussion, and, first, the crepitant rattle, and then the vesicular respiration, return.

If abscess open into the bronchia, there are pectoriloquy, cavernous respiration, cough, and rattle, and perhaps the *souffle voilé*. If gangrene take place, there is expectoration of a sanious fluid, of an extremely peculiar odour; the same odour is also frequently diffused in the atmosphere, and becomes highly diagnostic.

Sometimes pneumonia does not terminate by resolution, but gradually yields to a state of œdema. The symptoms are then dyspnœa, obscure respiration, and a sub-crepitant rattle.

5. *The Treatment.*—Pneumonia is one of those diseases which exemplify the doctrine which I have stated at large, respecting the employment of bloodletting. If this remedy be adopted early in pneumonia,—if the patient be placed perfectly upright and bled to incipient syncope,—much blood flows and much benefit follows.

The quantity of blood taken, the effect on the disease and on the patient, must be taken into consideration before we can determine whether in eight, or twelve, or twenty hours, the remedy should be re-instituted.

Bloodletting holds, certainly, the first rank amongst the remedies of pneumonia. The tartrate of antimony, probably, holds the second. The latter remedy is also extremely useful when there are some remnants of pneumonia after bloodletting has been carried to its full extent; and when the disease supervenes upon some other affections, such as typhus, variola, &c.

Ipecacuanha in nauseating doses; the squills; the lobelia inflata, &c., are important auxiliary remedies.

But we possess still more important remedies in local cupping, leeches, blisters, and cataplasms or fomentations. These may be prescribed after the general remedies have been employed, but have failed to subdue the disease entirely.

Lastly; if some part of the disease still lingers, a sharp liniment should be employed night and morning for months, or even years.

It may be useful to add to the value of each of these remedies by a change of climate, by a sea voyage, &c. We may thus prevent the formation of tubercles. Not less important is—a mind at ease.

IV.—Hæmorrhage.

There are several sources of hæmorrhage from the lungs, or hæmoptysis:—1. Blood is frequently expectorated in bronchitis; it is then seen in streaks mingled with mucus. 2. Blood is frequently expectorated in pneumonia; it is, in this case, so intimately blended with the fluid rejected by coughing, as to give it its peculiar yellow, rusty, or sanguineous hues. 3. Blood is frequently expectorated in distinct portions, of various magnitude, from that of a mere dot, or streak, to that of a teaspoonful, or a much larger quantity, as one of the earliest and most formidable symptoms of pulmonary tubercle.

The forms of hæmorrhage which are to occupy us here, are those denominated *bronchial* and *pulmonary*.

I.—Bronchial Hæmorrhage.

1. *The History.*—The *causes* of bronchial hæmorrhage are muscular efforts, especially of the voice, and of the respiration; other causes assigned are the suppression of a habitual hæmorrhage, of the catamenia, &c.

2. *The Symptoms.*—Bronchial hæmorrhage is denoted by the rejection of a moderate quantity of spumous and sometimes coagulated blood. The chest sounds well; there is a mucous rattle.

3. *The Morbid Anatomy.*—The bronchia are found to contain more or less of blood, and to be tinged by imbibition.

II.—Pulmonary Hæmorrhage, or Apoplexy.

1. *The History.*—The causes of pulmonary hæmorrhage are the same, generally, as those of bronchial hæmorrhage. Exposure to excessive heat or cold is a frequent cause of the immediate attack. But this disease frequently occurs in the most sudden and unexpected manner. It is also sometimes coincident with hæmorrhage in other organs.

2. *The Symptoms* are oppression at the chest, cough with much irritation of the larynx, and the rejection of a considerable, perhaps an enormous, quantity of florid spumous, or coagulated blood, with a frequent vibrating pulse, and the "bruit de soufflet" of the heart and arteries. The countenance is neither flushed or pale; the skin is natural, the feet may become cold.

The stethoscope affords two important signs of pulmonary hæmorrhage: the first is the absence of respiration in some part of the chest; the second, a crepitant rattle surrounding this part.

The Morbid Anatomy of pulmonary hæmorrhage consists in solidification of the lung. This solidification is as great as that of the hepatisation of pneumonia; but it is usually more partial and more distinctly and abruptly circumscribed; and it is uniformly of the deep hue of venous blood.

4. *The Treatment* consists in the use of the remedies prescibed for pneumonia, only in milder forms and measure.

One remedy particularly useful in hæmorrhage, is the application of an alcoholic lotion, extensively, across the chest.

The sulphuric acid; the acetate of lead; and the secale cornutum have been prescribed.

But before I quit the subject of hæmorrhage, I must discuss with you a most important question:—

What effect has hypertrophy of the ventricles of the heart in inducing this morbid affection?

This question is equally important in reference to the *brain* and to the *lungs*. M. Bricheteau has stated ("Clinique Médicale de l'Hôpital Necker," p. 160-214), that hypertrophy of the *left* ventricle is the frequent cause of *cerebral*, and hypertrophy of the *right* ventricle of *pulmonary* apoplexy. Is it so? I must here adduce the testimony of M. Louis, and happy, happy am I to turn from some of the parties to a most disgraceful controversy, to this lover of truth once more. "I have shown by facts," says

M. Louis, "that the influence of hypertrophy of the left ventricle of the heart in the production of cerebral apoplexy, is not so well established as is supposed, for in one hundred cases of organic disease of the heart, which I have taken carefully at La Charité and at La Pitié, in the majority of which there was hypertrophy of the left ventricle, I did not observe a single case of cerebral apoplexy. This fact would seem to show that, in the cases in which hypertrophy of the heart had been observed to coincide with cerebral apoplexy, there was more probably simple *coincidence*, than the relation of cause and effect. In order to establish the contrary opinion, it would be necessary to show that, *cæteris paribus*, cerebral apoplexy is more frequent in cases of hypertrophy of the ventricles of the heart than in other circumstances."—*M.S.* In reference to the influence of the hypertrophy of the *right* ventricle, M. Louis observes ("*Examen de l'Examen*," &c., p. 34, 35), "one of the lesions apparently the most likely to produce hæmoptysis, viz., hypertrophy, with dilatation of the right ventricle of the heart, seems without influence in this respect; at least, between 1821 and 1827, I took twenty-seven cases of this disease of the heart, and in none was there hæmoptysis. In six of these cases there was even a remarkable dilatation, with hypertrophy of the pulmonary artery, and of all its divisions, that is, the proof that the blood had been driven with morbidly augmented force into the pulmonary tissue, and still there was no hæmorrhage."

I pass on now to the consideration of

V.—Pleuritis.

1. *The History.*—Pleuritis, in its acute form, usually occurs rather abruptly, from exposure to wet and cold. The very first symptoms are pain and a checked respiration.

2. *The Symptoms.*—The pain of pleuritis is usually distinctly fixed to a spot denoting the seat of inflammation. It is produced or augmented by free inspiration; and it produces modifications in the movements of respiration which are highly peculiar and characteristic; the thorax, the affected side, or the part of the thorax, are unmoved, the respiration being either diaphragmatic, or only partially thoracic. I have frequently been able to detect the side, or the part affected, by watching the movements of the chest in respiration, and especially in a deep inspiration.

As the usual speedy effect of pleuritis is effusion, there is a dulness or the entire absence of sound on percussion, and there is the diminution of respiration under the ear, or stethoscope; the degree of effusion is measured by the degree of diffusion of these two physical signs, which are usually greater than in pneumonia. There is another stethoscopic sign of effusion in ægophony, which is heard when the quantity of the effusion is moderate, varying in its situation with that of the upper thin layer of the fluid, and consequently with that of the position of the patient.

In the few cases in which there is no effusion, these stethoscopic signs are absent.

In suspected effusion into the thorax, the parietes of this cavity may be pierced with a minute trocar.

3. *The Varieties.*—Pleuritis may exist

a. In one, or
b. In both pleural sacs, or
c. In one part only, as
1. *Between the lung and diaphragm.*
2. *Between the pulmonary lobes, &c.*
3. *In the mediastinum.*
d. With pneumonia.
e. With phthisis.

When one side of the chest is affected, the pain and other symptoms are confined to that side; when both sides are affected, percussion and the ear discover the want of sound and of respiration equally on both sides.

In partial pleuritis, the seat of the pain and the absence of equal movement in respiration, combined with dulness of sound on percussion and want of respiration under the ear or the stethoscope, denote the particular seat of the disease. Diaphragmatic pleuritis is denoted by a thoracic respiration and augmented pain on calling the diaphragm into play. Partial pleuritis is denoted by absence of sound and respiration, preceded by acute pleuritic pain. Pleuropneumonia unites the symptoms of pleuritic and pneumonic inflammation.

4. *The Morbid Anatomy* consists of the effusion

1. *Of organisable lymph.*
2. *Of serous, puriform, or sanguineous fluid.*

From pleuritis it is highly important to distinguish the different forms of *pleurodyne;* these are,—

1. *Dyspeptic;*
2. *Chlorotic;*
3. *Hysteric;*
4. *Rheumatic;*
5. *That of herpes zoster, &c.*

The diagnosis is founded upon the history and general symptoms of these affections respectively; and upon the absence of those of pleuritis, and of its stethoscopic signs.

The pleurodyne of the herpes zoster precedes the eruption several days, and is often sufficiently puzzling; it is characterised by being burning, stinging, and shooting, and by being recurrent; it is unaltered by a deep inspiration, motion, &c.

5. *The Treatment* of pleuritis is the same as that of pneumonia, except that mercury occupies the important place as a remedy for this inflammation of a serous membrane,

which the tartrate of antimony does for that of the lung itself. It must be given so as to induce ptyalism, and this must be kept up until the effusion shall be absorbed.

If all the other remedies have failed, it may be a question whether paracentesis thoracis should be performed.

VI.—GANGRENE (DIFFUSED).

1. *The History.*—Gangrene of the lungs is either *diffused* or *circumscribed*. In the former case it is a disease of acute form and rapid progress. It is of rare occurrence, and generally allied to other gangrenous diseases rather than to inflammation.

2. *The Symptoms* are extreme general debility and sinking, with great oppression, and a frequent, feeble pulse; there is a crepitant rattle, with a peculiar and even pathognomonic expectoration, of a gangrenous fœtor and dingy green colour; the rattle rapidly augments, and the patient dies from accumulation in the bronchia and sinking of the powers.

3. *The Morbid Anatomy.*—The substance of the lung is congested, easily torn, of the various greenish, brownish, or blackish hues, and of the excessive fœtor, of other parts in a state of gangrene.

I here, Gentlemen, terminate my account of the *acute* diseases of the lungs; in my next lecture I shall beg your attention to the *chronic* diseases of this important organ.

LECTURES
ON
MATERIA MEDICA AND THERAPEUTICS;
NOW IN COURSE OF DELIVERY
AT THE
WINDMILL-STREET SCHOOL OF MEDICINE
BY
GEORGE G. SIGMOND, M.D.

EMETICS.

EMETICS:—*General symptoms produced by emetics. Retching and its effects. Idiosyncrasies. Definition of the term emetics. Rumination in the human subject. Effects of over-distention of the stomach. Sudden death and rupture of the viscus. Relief produced by full vomiting. Operation of emetics. History of ipecacuanha. Discovery of emetine. Doses and medicinal properties of ipecacuanha.*

GENTLEMEN:—Emetics deservedly hold a very high station among our therapeutic agents, and have been from an early period employed in medicine; they may be useful either by the nausea they produce, or by the relief which they give to an overloaded stomach. The different states that follow upon their administration are characterised by peculiar symptoms. In the first, or nauseating stage, all the actions by which life is carried on are less energetically performed, and the functions of the different organs are visibly diminished in power. The circulation is less active, the pulse is slow, oppressed, and contracted; the capillary vessels are scarcely injected, so that the face assumes either a deadly cast, or a blue appearance, cold clammy sweats burst forth, the eyes lose their lustre, the lips their natural hue; rigors supervene, the nervous energy is controlled, the highest courage broken down, for both the corporeal and mental powers become momentarily enfeebled, and life ceases to be a source of desire; this nauseated state may be kept up for days and for weeks in individuals of peculiar susceptibility, during which death is not unfrequently prayed for, as a release from the suffering, but as soon as vomiting occurs, an alteration takes place, which may either be momentary or permanent; the whole system is roused into action, and every organ is relieved.

The ineffectual efforts to vomit, which are known by the name of retching, are both distressing and dangerous, and therefore demand every assistance that can be given. Some persons who would quickly be destroyed by the train of miserable sensations that are consequent upon nausea, are very much relieved by complete evacuation of the stomach. There are some diseases, however, in which keeping up for some time this nausea is necessary; and although the means of cure are almost as dreadful to bear, as are the complaints that are made, they must be endured with patience and with submission. The deadly nausea kept up by ipecacuan, or antimony, will sometimes diminish inflammation which would not yield to remedies apparently more active. Thus, occasionally inordinate action in the lungs, or active disease of the eye, is more advantageously controlled by these remedies than by any other; the fluid in abscesses has been rapidly absorbed; diseases of the skin alleviated and cured; purulent ophthalmia has been checked, dropsical effusions dispelled, inflammation of the substance of the brain and its investing membranes, has yielded to such treatment, and more particularly if the nausea be mechanically produced, instead of by introducing into the stomach the remedial agent. The worst states of disordered functions of the brain have received their cure from the keeping up in the stomach a constant nausea, by obliging the sufferer to submit to unwonted motion, either by swinging, by being obliged to ride or to run within the limits of a very small circle.

It is singular to observe the idiosyncrasies of different individuals with regard to the production of this feeling; with some the riding in the carriage, the movement of any glittering object before their eyes, peculiar

sounds will cause it. Sympathy, or association of ideas, will most strikingly influence this action, even in the strongest frame; but the power of the will sometimes counteracts the effects, and a determination to exhibit self-command has been known completely to control the sickness even under very trying circumstances.

Those substances only are defined emetics which act by their own innate power, and which do not cause the evacuation of the stomach either by their great bulk, their nauseating taste, their fetid odour, which do not injure the power of the stomach, nor leave behind them any deleterious effect; otherwise a vast number of mineral and vegetable bodies would be enumerated in this class which the stomach rejects from the vis insita which teaches it that the substance would, if allowed to traverse the circulation, put a stop to the great principle of life. It would appear from some instances, though they certainly are very rare, that individuals have possessed the power of causing the food swallowed to regurgitate without any inconvenience to themselves, and hence to have assimilated to that class of animals which are called ruminants, from their voluntarily throwing back the food they have already swallowed into the mouth, for the purpose of undergoing a second mastication. This chewing the cud, as it is termed, is natural to grazing quadrupeds possessing many receptacles, to which the name of stomach is applied.

The best narrative of one of these cases in the human subject is to be found in one of the volumes of the "Philosophical Transactions;" and Dr. Small, the narrator of the phenomena which were exhibited, cites several instances.

The circumstances are various under which the stomach relieves itself, but neither do simple distension, from over-feeding and gluttony, nor acrid substances, necessarily induce this inverted action; life is sometimes suddenly terminated by apoplexy, or by simple distension, without any effort of the organ to unload itself; thus we learn from Sir Everard Home, that a child left by the nurse close to an apple pie, actually eat so enormous a quantity as to fall dead in a few minutes. Upon a close examination after death no remarkable appearances presented themselves, with the exception that the stomach was enormously distended by the pie.

Another instance of this kind is quoted by Wildberg, as it became the subject of a medico-legal inquiry. A very corpulent person, after eating a very hearty dinner, suddenly died; it was well known he did not live happily with his wife, and therefore suspicion was excited that she had attempted to rid herself of him by poison. The account that his wife gave of his death was, that no sooner had he dispatched his dinner than he dropped off into a sleep, from which, before many minutes had elapsed, he suddenly woke up, called out for fresh air, exclaimed that he was dying, and before the physician who was summoned could reach him, he was actually dead. Upon the examination Wildberg found the stomach so enormously distended with ham, pickles, and cabbage-soup, that when the abdomen was first laid open nothing was at first visible but this swollen stomach and the distended colon. At first some observation was excited by the discovery of a whitish powder, deposited in the folds of the stomach, and it was suspected that it would prove to be arsenic, but upon analysis it turned out to be magnesia, which he was in the frequent habit of taking; the pressure of the contents of the abdomen had pushed the diaphragm high up into the cavity of the chest; the brain, which was carefully examined, exhibited no traces of any alteration of structure, nor of any particular congestion.

Rupture of the stomach is more likely to occur, but even this is an unusual circumstance; it has, however, been known to follow both upon distension and upon ineffectual efforts to vomit. Lallemand, in his "Inaugural Dissertation," relates a very remarkable instance. A female, who had just recovered from a long attack of dyspepsia, was foolish enough to attempt to make up for her long restriction in diet by taking an inordinate quantity of food. In a very short time she was seized with a sense of oppression and weight in the stomach; there was nausea, with fruitless attempts to vomit. She suddenly uttered a piercing shriek, exclaimed that she felt her stomach tearing open; she then ceased to make any effort to vomit, became insensible, and died in the course of the night. There was found in the stomach a laceration five inches long, and a great deal of half-digested food had escaped into the cavity of the abdomen. In this case the pylorus was found indurated, which had doubtless been the cause of the dyspepsia, and may likewise account for the stomach being unable to pass the food into the duodenum.

Where full vomiting takes place without any particular unusual sensation, and where the nausea has not been of a distressing nature, great relief is experienced in very many states of morbid function, and it not unfrequently occurs that a complete evacuation of the stomach, such as that which occurs during a protracted sea voyage, rather promotes the general health than leaves behind any mischievous effect; for a complete ablution, as Cullen has called it, of the plicæ, or folds of the stomach, is its consequence, with a removal of the mucus or sordes that may have long been collected, and served almost as a mechanical impediment to the proper digestion of the food, its

conversion into alimentary matter, and its regular discharge into the intestinal canal, the influence extending far beyond the stomach itself, for those important viscera which aid by their secretions the assimilating organs, the liver and the pancreas, are called into action; and with the inverted motion of the stomach the intestines sympathise; they likewise associate their action, and they pour forth from the surface nearest to the stomach their contents, whether they be half-digested food, bile, pancreatic juice, or mucus. At one period it was supposed to be a criterion of the due effect of the emetic when there was a tinge of biliary colouring matter in that which was ejected, or if a taste of great acridity pervaded the mouth and fauces. Some emetics distress individuals more than others, and probably ipecacuan is the one, of all others, best adapted for general use; for, though the preparations of antimony are very valuable to us, and more particularly as they very frequently act as well upon the bowels and produce copious evacuations, they are very apt to lower the general tone of the system, to produce much nausea and depressing sensations; and this occurs more particularly in young children, in whom sometimes great distress is produced and long kept up by these salts. There is considerable attention necessary in fixing the dose of each emetic, observing the time at which it is best administered, and the particular state of the pulse, the secretions, and the skin. A small or medium dose of some of the emetics is to be avoided, for the result is great nausea, with ineffectual efforts to vomit; while an inordinate dose greatly disturbs the stomach, and leaves it in a dyspeptic state; but, of the two, the small dose is most mischievous, for in this case the whole system suffers, whilst, where the great quantity has been given, the organ itself is only affected, and although there will always be a great sympathy between it and the whole frame, still it recovers itself more rapidly, and is soon brought back to its former condition.

The operation frequently takes place some time after the emetic has been taken, ten minutes or a quarter of an hour generally elapse. Although we possess some drugs which instantaneously produce this effect, still we are seldom desirous that they should be employed, for the more gradual influence is much more useful in the cure of disease. The stomach, in most instances, ought to be allowed to act upon the substance, and by its own chemical power to divest the emetic of such extraneous matter as may be devoid of any active agency; hence ipecacuan is preferred to the emetic principle it contains. Disease has very considerable influence upon the power of each of these agents, independent of idiosyncrasies which lay individuals more open to the rapid discharge of the stomach. Thus, we generally find that in diseases attended with much fever, vomiting is easily excited; in almost all the exanthematous diseases this is very strongly marked: in persons labouring under small-pox more especially, and small doses only are necessary. On the other hand, in diseases of the brain and of the nervous system, attended with spasm, the difficulty of obtaining this end is very great. In mania, in melancholia, in hypochondriasis, we notice it, and likewise occasionally in epilepsy, in chorea, in tetanus, and in hydrophobia; and in these cases though the deadliest nausea is produced by tobacco, the vomiting does not occur to give relief. It occurs often where you have no immediate necessity of giving the emetic, that you may delay it until the following morning, and greatly increase its effect by the administration of a narcotic on the patient's retiring to rest. When the vomiting has commenced it is right to assist the stomach by diluents which have some slight bitterness if possible; hence camomile infusion is so generally used, and the slight tonic effect that is left behind is of service; by such means a general washing out of the viscus takes place, and no remains of the drug employed are left behind to keep up that state of irritation which is the consequence of the want of this proper precaution.

The secondary operation is very serviceable, for the system is gently excited, the perspiration promoted, an inclination to sleep comes on which, if indulged in, is found to be very refreshing, and from which the individual generally awakens relieved from those impressions from which he has been suffering. That there are many states in which they are very prejudicial there can be no doubt, and that they are doubtful in others, but, upon the whole, they may be considered amongst the most useful of the instruments which have been placed in our hands, and I shall, as I bring each of them before your consideration, dilate upon the advantages we have obtained from its use. I shall not enter upon the theories that have been advanced to account for their operation, for each person has his own, and none are perfectly satisfactory. That the action of emetics is intimately connected with the brain, our knowledge of a vast number of facts has shown to us, and there may be circumstances under which the stomach is a mere passive organ, but this is not universal; that a retarded circulation produces it intoxication shows, and hence bleeding will often prepare the stomach; but I think we must rather feel that it is not one set of causes that invert the usual action, but that there are many. Magendie, Darwin, Boerhaave, and many others, have attempted to explain the phenomena that we witness, but to them I prefer referring you rather than to attempt to elucidate their views, or to offer my own.

I shall take first the emetics that are presented to us amongst the vegetable bodies, and then with those furnished to us by the mineral kingdom; and as ipecacuanha is the most important of the first class, I shall commence with it.

IPECACUANHA—CEPHAELIS IPECACUANHA.

The general title ipecacuan, it would appear, is given in South America to the roots of a great number of plants of the violet tribe, all of which seem to possess more or less of the power of provoking vomiting; indeed, it is probable that the violaceæ of Europe likewise are endowed with some share of this characteristic property; ionidium parviflorum is used by the Spanish Americans, and ionidium poaya by the Brazilians, as the common substitute. The plant which is now considered to yield the ipecacuanha of commerce has been described by Professor Botero, of Coimbra, who, assisted by Bernardo Gomez, a botanist residing at the Brazils, made it the particular subject of his inquiry, and in the sixth volume of the "Linnæan Transactions" you will find all that he has arrived at; from his researches we have now learnt that the plant is perennial, that it is principally found in forests, abounds in moisture near Pernambuco, Bahia, Rio Janeiro, and other provinces of Brazil, that it flowers from the month of November to March, and that its berries ripen in May; its root is simple or somewhat branched, and furnished with a few short radicles; it is roundish, most frequently perpendicular, but rarely slightly oblique, from two to four inches in length or more, and two or three in thickness, irregularly bent, externally brown, and divided into numerous prominent, unequal, somewhat wrinkled rings; the stem is creeping at the base, then erect, and rising four or five to nine inches in height; the leaves are from four to eight near the summit of the stem, almost sessile; the flowers are aggregated in a solitary head; the florets are sessile, from fourteen to twenty in number; the calyx is urceolate, with five small blunt teeth; the corolla is synpetalous, the border shorter than the tube, woolly about the throat, swelling upwards, and divided into five ovate acute segments; the filaments are short capillary, inserted into the upper part of the tube; the germen is ovate, surmounted by a thread-shaped style, the length of the tube; the fruit is drupaceous, of a reddish-brown or purple-colour, becoming wrinkled and black, and containing two small, smooth, oval seeds. Besides those I have already mentioned the roots of other plants are called ipecacuan; amongst them are principally to be enumerated the three species of viola, which, according to Decandolle, produce the white ipecacuanha: the viola calceolaria, of the Species plantarum, a native of Guiana and of the Antilles, the ipecacuanha of the Mantissa, and the parviflora of the Supplementum Plantarum, both of which grow spontaneously in Brazils, and some parts of South America. Cynanchum ipecacuanha, cynanche tomentosum, and asclepias curassavica, according to Martius. The Richardsonia scabra, and likewise emetica, ionidium ipecacuanha, brevicaule, urticæfolium, chiococca, anguifuga, and densifolia, manettia cordifolia. In St. Domingo several species of ruellia are called false ipecacuan. That considerable doubt existed as to the plant that yields the brown ipecacuan we learn from all botanists; but the authorities are altogether so much in favour of the plant I have described to you, that I think we may consider the subject to be now decided. The common brown ipecacuan of the shops is first sent from Rio Janeiro to Portugal, from whence we receive it packed in large bales. Upon examination we find that its colour varies from different shades of grey to brown, and even to red; it is about the thickness of small quills, it is twisted, wrinkled, it has a compact brittle bark transversely covering a whitish wood; there are deep circular fissures that run through the heart of each piece, giving the idea of a number of rings strung upon a thread, as has been observed by the authors of the "Medical Botany." Dr. Thompson observes, that in choosing ipecacuanha the larger roots, which are compact and break with a resinous fracture, having a whitish-gray, somewhat transparent, appearance in the inside of the cortical part, with a pale straw-coloured medullary fibre, are to be preferred; the false or white ipecacuan, may be distinguished from the real by their colour, and by the size of the woody part, which is considerably thicker than the bark, whilst in the true bark it is so much less as to have been described by Brotero as only a thread or filum.

At a very early period of the European connection with Brazils ipecacuanha was introduced into the old world, and in the collection of voyages once so popular throughout England, made by Purchas, this passage is to be found:—"Igpecaya, or pegaya, is profitable for the bloodie flux, the stalke is a quarter long, and the roots of another or more; it hath only foure or five leaves; it smelleth much wheresoever it is, but the smell is strong and terrible. The root is beaten and put in water all the dew, and in the morning if this water, with the same root, be beaten and strained, be drunke, only the water, it causeth presently to purge in such sorte that the laske ceastheth altogether." This passage, which is attributed to Michael Tristram, has been the subject of some discussion amongst those who have copied it into their works from the use of the term purge, as the ipecacuan does not produce this effect; it, however, seems most probable that the word purge

was used synonymously with vomit by the old English writers. The first who has described it, and has spoken of two sorts, is Piso in his "Natural History of Brazil." It was imported into France by a French physician of the name of Le Gras, in 1672, but it does not seem to have been at that period particularly noticed, nor was it universally received until the grandfather of the celebrated Helvetius had performed some cures of dysentery by its employment, and for which he received from Louis the Fourteenth a reward of a thousand pounds.

In the year 1817, Magendie and Pelletier laid before the Academy of Science at Paris, a very interesting memoir on the emetic properties of a peculiar principle which they had, by chemical analysis, obtained from the different species of ipecacuan, and to which they gave the name of Emetine. They expected great advantage would be derived from its introduction into practice, as it was divested of any disagreeable taste or nauseous smell, which latter characteristic was found to reside in a peculiar fatty matter. The preparation of coloured emetine is formed by powdering ipecacuan, and digesting it in ether at 60°, to dissolve the fatty odorous matter; as soon as the powder gives up nothing more to the ether, it is again exhausted by means of alcohol; the alcoholic tincture is then placed in a water bather, and residue redissolved in cold water. It thus loses a portion of wax, and a little of the fatty matter, which still remains. It is only further necessary to macerate it on carbonate of magnesia, by which it loses its gallic acid, to redissolve it in alcohol and to evaporate it to dryness.

Emetine thus obtained is by no means pure, and various other processes have suggested themselves to other experienced chemists. Dr. Ure, Caillory, and other eminent men, have laboured upon this subject, and have obtained a substance not acted on by the atmospheric air, white and pulverulent, differing from the coloured emetine by its not deliquescing. It is soluble in cold water, rather so in warm water, but readily in ether and in alcohol; its taste is slightly bitter; it dissolves in all the acids, forming with them crystallisable salts, but not entirely neutralising them, as some acid still predominates quite perceptible to the taste. It is precipitated from its combinations by gall-nuts. Caventon swallowed a dose, which produced some inconvenient sensations; but remembering the effects of the gall-nuts, he took a portion of a decoction of them, and thus neutralised their bad influence. This pure emetic appears to be much more energetic than the coloured; two grains are sufficient to kill a dog. Magendie saw vomiting produced by the sixteenth of a grain in a man aged eighty-five. He was, however, an individual of that peculiar susceptibility to vomiting on the slightest impression that we occasionally meet with. Lerminier, of the Hospital la Charité, thinks that one or two grains of emetine equal in activity twenty grains of the root; the emetic lozenges of Magendie he prefers, as the formula under which emetine may be administered to children with safety and efficacy.

The same effects follow upon its injection into a vein, or upon its application to any portion of the body deprived of its natural dermoid covering. The root of ipecacuan is not considered poisonous, as the stomach very quickly rids itself of its presence; but very probably it might, under some circumstances, united to other noxious agents, prove injurious; and there would seem to be some danger from its union with opium, though not when in such doses as it exists in the valuable formula known to us under the name of Dover's Powders, in which it acts as one of the most certain and gentle sudorifics with which we are acquainted. There is a peculiar idiosyncracy in some constitutions, which has been strikingly exhibited, in which the odour issuing from the roots when powdered has produced upon the respiratory organs symptoms of a highly distressing character. Great difficulty of breathing, a sense of oppression and weight about the precordia, an unspeakable anxiety, and even convulsive actions, have been induced by the effluvia issuing from the roots, and some persons have complained of almost instantaneously experiencing a sensation of suffocation. It is not that there is any fetid or noxious odour, for it has only a sickly smell; but there is something which has not yet been explained that affects the mucous membranes. Those who have tried in the laboratory different experiments, in which the root has not been reduced to powder, have not complained of its influence; but the moment pulverisation has commenced, the symptoms of which I have just spoken evince themselves, and sometimes fainting and spitting of blood have been known to be amongst the consequences of reducing it to powder. It is generally found that vinegar, and the weaker acids, alter the medicinal effects of ipecacuan; and that it is possible, by these means, to act upon the bowels by this agent instead of causing the stomach to reject its contents. Dr. Irvine found that upon the administration of half a drachm in two ounces of vinegar, that the bowels were put into motion; and this effect has likewise followed upon making a draught intended to act as an emetic, by infusing the powdered ipecacuan in an infusion of roses, slightly acidulated with sulphuric acid. In employing ipecacuan as an emetic, a dose from ten to thirty grains is sufficient, and it is best given upon the spur of the moment, where poison has been taken, by pouring boiling water upon the root, and

without straining the fluid, administering it as soon as it is cool; and sometimes, where emetics of sulphate of zinc and of copper have failed, where doses of opium have been taken which have destroyed, apparently, the susceptibility of the stomach, this plan has succeeded. It must be remembered, however, that heat very much impairs its power, so that this drug should be infused in warm water, in larger quantities than it should be given in powder. Sometimes, though it is by no means a common occurrence, retention of urine will occur after taking this remedy, and even where doses of a very moderate kind have been given; indeed there are instances of this occurring where only grain doses have been prescribed, in the form of dinner pills, with rhubarb and aloes. Persons who have weaker digestions have often recourse to some pill of this sort, which is taken an hour or two before dinner. They should never use these indiscriminately. A retention of urine after a meal, in which wine has been freely indulged in, may be a serious mischief, and it has been produced by taking ipecacuan in the shape of pills, as was recommended in France for dyspeptic states of the stomach.

Medical History and Statistics of the British Legion in Spain; comprising the Results of Gun-Shot Wounds in relation to important Questions in Surgery. By RUTHERFORD ALCOCK, K.T.S., &c., Deputy-Inspector of Hospitals with the Auxiliary Forces in Portugal and Spain. Churchill. London, 1838.

THE author of the volume thus announced, a nephew of the late Mr. Thomas Alcock, many of whose able communications appeared in the earlier volumes of THE LANCET, was among the first of our countrymen engaged in the contest for the emancipation of the Peninsula from the thraldrom of priestcraft and absolutism. He joined the standard of Don Pedro at Terceira, when the fortunes of that prince possessed more of the attributes of the *iron* than of the *golden* age, and through the subsequent scenes of trial conducted himself with so much humanity, courage, and constancy, as to earn the esteem and affection of his fellow soldiers of every grade. At Oporto he attracted the particular regard of the Brazilian Emperor, who conferred upon him the Order of the Tower and Sword.

When Sir George Evans was appointed to form the British Legion (whose subsequent feats and defeats have unhappily contributed rather to tarnish than enhance the military reputation of the empire) his attention was naturally directed to Mr. Alcock, as a medical officer the most distinguished in the Portuguese campaign, and this gentleman was consequently appointed to the important office designated in the title-page. That he has maintained an equally high character in this second expedition as in the first, if we had not the living testimony of the general in command, and of his brother officers, the volume before us would afford ample proof.

A principal object of Mr. Alcock would appear to be a vindication of the medical staff, whose character for skill and devotion to their duty has been impugned by party writers, and we think that he has fully succeeded. Another prominent object of the writer is to bring the result of his own extensive experience to bear on certain principles of surgical practice advocated in the works of Larrey, Guthrie, and Hennen. Our space being limited the extracts we present to the reader must be brief, though we trust sufficient to enable him to judge of the materials of the work, and of the plain and manly manner in which they are offered.

Having thus said grace, we shall fall to, to the banquet, and for the sake of distinctness present our slender morceaux to the reader in three courses: the historical, the statistical, and the practical. We have very much condensed the observations of Mr. Alcock.

1. "I feel there is a duty to perform,—that of rendering justice to the zeal, ability, and courage of a numerous medical staff, who entered the service regardless of taunts and sneers at home, and were not prevented by privation or danger from performing their duties faithfully.

"In Vittoria, during the first winter, there were trials falling upon the medical officers alone calculated to paralyse all exertion from a conviction of our inefficiency to remedy evils which seemed each day to increase, bringing fresh sources of confusion and misery in their train. Even stout hearts quailed, for many of our number were carried from their duties at the hospitals to their quarters, there, in the sharp access of their delirium, to rave of the dreadful sights they had just witnessed, of blackened feet rotting from the living flesh, &c., until they themselves were added to the list of the dead. Eleven medical officers died in four months at Vittoria, and only six escaped from attacks of fever so severe as to leave the convalescents long in a shattered state.

Strong motives and minds, not easily unnerved, were necessary at such a period, and it is with pride and gratitude that I remember the courage and zeal with which Mr. Callender and myself were seconded in our arduous duties by the medical officers.

"On our return to San Sebastian, where regular hospitals were established for the British, the change was not less grateful to the surgeons than to the patients. The same officers who had toiled, when the pleasure of fulfilling an important duty was the only repayment, now applied, not less zealously, to the more grateful labour of observing and recording the manifold facts presented in the treatment of nearly 5000 cases, of which more than 1500 were from gun-shot wounds." —pp. 1, 2, 3.

After this handsome tribute to his colleagues, the author proceeds:—

"In the summer and autumn of 1835 the recruits for the Legion were landed along the northern coast of Spain, at Santander, Bilbao, and San Sebastian. Near the end of October between 7000 and 8000 men were in the country, and in the following proportion:—English, 3200; Irish, 2800; Scotch, 1800. The English were, upon the whole, a bad class as to physical capacity; a great number of them were from London, Liverpool, or Bristol, accustomed to the enervating life of large cities; the Scotch were chiefly from Glasgow and its vicinity, and, therefore, partaking of the same disqualifications as the English; not more than 150 of them came from the Highlands. The Irish quota were undoubtedly the best adapted for service; the majority of these had been accustomed to pass their days in the open fields, and to sleep soundly on a mud-floor, or on the hill side, to eat what they could get, and when and where, without regularity, and thus resist poverty with a cheerful hardihood. The English and Scotch weavers, and city artizans, were ill adapted to resist a sudden change of climate, food, and mode of life, and could not compete in soldierly qualities with the rustic sons of Erin.

"At Vittoria, during the first winter, the English Brigade of Infantry was swept into the hospitals in great numbers, one-third nearly; the Scotch, about one-fifth; and the Irish, not more than an eighth.

"The national proportions of the Legion have been stated, but to understand its true character and composition a few additional facts must be considered. When the whole force had assembled at Bilbao, previous to its march into the interior, it underwent the inspection of a medical board. It was ascertained that, upon an average, 100 men in each regiment of infantry were either too young or too old for service, deformed, diseased, or crippled. Of these, between 200 and 300 were declared invalid and totally incapable of bearing arms; but as there was not sufficient shipping to embark them all a large portion was still kept hanging on with the Legion. The system of recruiting, by paying agents so much per head, without previous examination by a responsible medical man, was the cause of this great evil. The result of the inspection was a conviction that *one-eighth* of the whole force was unfit for service.

"At different intervals, subsequent to the examination alluded to, 1500 recruits enlisted in the same fashion, and including the same proportion of invalids, joined the Legion."—pp. 4, 5, 6, 7.

"The months of July, August, and September, were occupied in the disembarkation of the men and the organisation of the force. In October the whole, with the exception of the cavalry, were concentrated in Bilbao, a town of good size, situated in a deep valley on the banks of a river. A part of the troops was badly quartered, and their discipline at that early period not being very perfect, excess in drinking was frequent. The cheapness of wine and spirits increased the difficulty of prevention; but notwithstanding these circumstances the sickness was exceedingly moderate.

"The weather was then fine, the rations good, and the spirits of the men excellent. In this state, after a few marches and skirmishes at San Sebastian and Bilbao, the Legion commenced its march into the interior on the 29th of October. The few sick were left behind. Nothing could be finer than the weather, or more exhilarating than the mountainy scenery, through which the route lay. The second day's march brought us to Castro, where we halted a day, and sent back 200 men, knocked up with sore feet, fever, &c. We arrived at Bribiesca, a miserable town, in the plains of Castile, on the tenth day. There had been three day's halt at different places, and each day's march had averaged from fifteen to twenty miles. The men marched well for raw troops, although the weight was evidently grievous to many. At Bribiesca the Legion remained three weeks; the weather was cold, alternately snowing and raining, and the troops were badly supplied with clothes and bedding. Here the sick-list also was small, but probably the seeds of the disease, so shortly destined to thin our ranks, germinated at this time, for privations are often felt long before their effects tell upon the system in a tangible form. The troops were again in motion on the 1st of December, and on the 3rd arrived at Vittoria.

"Vittoria being the centre of General Cordova's line of operations, a large mass of troops were generally in the town and its immediate neighbourhood; and during the months of December, January, February, March, and April, we had cold weather,

with frost, snow, hail, and rain, alternately. The ground was either covered with a deep stratum of snow, or softened into a marsh by thaws or rain. The rations were bad in quality. The bread made of unsound flour, imperfectly kneaded and baked. The meat I have seen thrown into the camp kettles so immediately after being killed, that it was still reeking and quivering; and I have seen the same meat swallowed half cooked; and that at six o'clock in the evening, the ration not having been issued till past four. The wine was generally sour and bad, seldom of sound quality. As a condiment to this miserable fare, the soldier was frequently induced to swallow large potations of *aguardiente** (if he could buy, borrow, or steal any), which often inebriated him, and opened a store of new evils, by inflaming the alimentary canal.

"During the first two months the Legion occupied large convents and churches, having a very imperfect supply of straw and bedding, which the improvidence of all, and the dishonesty of many of the men, constantly tended to destroy or diminish, until at last the majority lay on the boards, many on flag-stones, with no covering but their clothes, and those frequently saturated with rain and snow-water."—pp. 13, 14, 15.

Want of space and of accommodation for the sick exercised a fatal influence upon the welfare of the Legion. The sick soon overcrowded the wards which had been selected for hospital purposes, and additional accommodation could not be procured from the unwilling Spanish authorities until it had become no longer sufficient to remedy the evil. When a building was obtained, it consisted of bare walls and floors only, often without doors and windows. An equal difficulty was to be overcome in obtaining a few blankets and palliasses. Ventilation, either in excess or deficiency, according as the patients were placed in small close rooms, or in vast corridors, without glass in the windows, added to the amount of misery. Moreover, a scanty supply of medicines of inferior quality and the total want of cleanliness, arising as well from the absence of proper utensils as from a perfect disregard of all system, formed additional obstacles in the path of the medical staff. We have not space to cite Mr. Alcock's touching account of the privations and sufferings endured by our unhappy countrymen, through the *wilful* neglect and insolence of the Spanish authorities.

"*The means were there,*" says Mr. Alcock, "*the will was wanting.*" That such infamous conduct should have been suffered to pass unpunished, we think is equally disgraceful to the *patient* commander of the Legion, and to Colonel Wylde, as to the guilty authorities. But to return to Mr. Alcock:—

"The medical staff at the commencement consisted of a fair average for the amount of the force, taking into consideration its organisation into fourteen corps, each requiring to be complete in itself, besides the regimental staff of three to each corps, which had been originally provided. Several of the battalions, from resignation, &c., had but two, a surgeon and an assistant. There was a general medical staff of nine superior medical officers, and sixteen assistants; of these eight were stationed at the depôt in Santander, where was a sick list of upwards of 300. Four were at Bribiesca, in charge of 200 sick. At head quarters we had, at the commencement of the winter, fourteen officers of the general establishment for hospital duty. The number of hospitals caused by the smallness of the buildings very much increased the labour. We had seven general hospitals in Vittoria, and every regiment had some sick in its cantonments. From January to April eleven medical officers died, and seventeen lay seriously ill in Vittoria at the same time, leaving but twenty-three for the whole service of the Legion, to attend to the seven general hospitals, the regiments cantoned in different villages, and upwards of fifty officers sick in quarters.

"The military surgeon will easily conceive how overpowering must have been the labour when, in addition to the deficiency of number, arrangement, system, and proper means were also wanting. Hospital sergeants, clerks, wardmasters, all fell ill in the same manner, having none to supply their places. In one week, in one of the hospitals, the change of the medical officers, at a moment's notice, was three times rendered necessary by illness. To complete the climax, the hospitals were unfurnished with purveyors, and the harassed medical officers, in addition to their proper duties, were engaged in endeavours to supply a thousand deficiencies, in keeping large cash accounts, purchasing provisions, and, in short, regulating all the administrative details.

"The result of all these causes of evil, which I have imperfectly enumerated and characterised, was the throwing into the hospitals 5000 cases for treatment, out of a force consisting scarcely of 7000 men, and subsequently, in six months, a loss of 1223 by death in Vittoria and its environs. Besides these deaths, at least 500 men were

* Spirits of wine qualified with essential oil of aniseed.—Rev.

incapacitated for further duty. Two hundred were swept away at Santander and Bribiesca, whilst labouring under hardships induced by neglect. Thus, in one winter, the defective arrangements of the government and its agents, with the hostility and inertness of the provincial magistrates, lost the lives and services of 2000 men of the Legion, besides enfeebling the whole force for six months. What shall we say of the mass of human suffering thus unnecessarily entailed?"—pp. 18-19.

"About the middle of February a long-expected supply of blankets, hospital clothing, baths, cooking utensils, &c., *obtained from the British Ordnance*, arrived at Vittoria, and the medicines and medical stores ordered before the Legion left England, were received at the same time. The possession of large convents enabled us to make better arrangements also, and the condition of the patients, though far from what it ought to be, was signally improved. On the 12th April, the Legion began its march back to the coast, and the joy of leaving the scene of their sufferings seemed to act like a charm. I left on the 14th, and passing the different brigades *en route*, thinned though they were by the absence of the sick and dead, a wonderful change was obvious. Even the sickly and wan pushed gaily on, and the strong marched with the spirit of men who had shaken off all care.

"By the 5th of May all the effective force except the cavalry and artillery, was concentrated within the walls of San Sebastian besieged by the Carlists, who had entrenched themselves in a triple line of field defences. In the lines from San Sebastian to Passages, the Legion remained the rest of their period of service, with the exception of two expeditions to the Bidassoa. A large square building, originally destined for an exchange, well ventilated, and overlooking the bay, was converted into an hospital for the Legion. It consisted of two large wards, one on each floor, and lesser rooms, chiefly taken up in offices. This was made the fever hospital. After the action of the 5th of May the large convent of San Telmo was occupied as a surgical hospital. Here there was a free circulation of pure air. The great thickness of the walls assisted to keep the wards cool in summer, and warm in winter. The diets were of excellent quality, and order and cleanliness were enforced. The space allotted to each patient consisted of 744 cubic feet.

"The patients were carefully classed according to the nature of their injuries."

Having thus served up our author's historical morceaux at somewhat greater length than we intended, we proceed to the second course,—the statistical.

2. The following is the return of the General Hospitals at Vittoria, from January 1st to April 13th, 1836:—

Months.	Admitted.	Discharged.	Dead.	Remaining.	Proportion of Deaths.
January	2345	1172	237	1006	1 to 9¾
February.....	897	693	281	979	1 to 8¼
March	1201	1012	275	893	1 to 8
April to the 13th	263	203	76	787	1 to 13½
Total.....	4706	3100	819	787	1 to 5¾

"From April 14th to June 27, when the depôt was broken up, 187 died at Vittoria, out of the 787 left in hospital. Seventeen men died during removal to Santander. The loss at Vittoria in December was 100; and at Trevino and the other cantonments, 100 more; making a total of 1223.

"During the first four months the mortality among the sick was about one in forty. From the end of the fifth to the ninth month, one in five; and from the tenth to the twenty-third month, one in 13½.

"At Bribiesca the mortality during the same period was one in three; 160 were admitted, of whom fifty-three died; but these were all the worst cases, for there was a barrack called the Brigade Hospital, into which the sick were received in the first instance; and whence they were transferred to the other when their cases assumed an alarming aspect. *Two hundred* may be taken as the number admitted here, of which three died."—The average mortality upon the whole sum of cases treated would therefore be about *one in six and a half*.

"At Santander, out of 717 cases treated, 111 died, making a proportion of 1 to

64. So that it may fairly be presumed that the mortality was, as nearly as may be, the same at the different stations.

"The first periods passed in the country were summer and winter, and the troops were quartered in a valley, and on the rising banks, yet our sickness was exceedingly slight, and the men seemed to escape altogether the severe remittent fevers which might have been expected to prevail. At the close of the autumn an exhilarating march of ten days, kept up, doubtless, the healthy state of the troops;—and even in Bribiesca, each day expecting to renew their march, during the three weeks' halt, the stimulus scarcely died away. It was only after their arrival in Vittoria, exposed to the greatest misery and privations in food, clothing, and shelter, that disease in the worst form fell upon us in the shape of remittent fever—a species of typhus gravior, but peculiarly characterised." — pp. 28, 29, 30.

(*To be concluded in our next.*)

A New Derivative and Etymological Dictionary, &c. By J. ROWBOTHAM, F.R.A.S. London: Longman and Co., 1838. pp. 713.

A DICTIONARY of derivations, which will explain to the English reader the correct etymological meaning of the thousands of words which have been somewhat recently introduced into our language from the Greek and Latin, has been long wanted, and the present neat little work goes very far to supply the deficiency. It is not necessary to dwell upon the obvious fact, that a correct knowledge of the *original* meaning of the words from which scientific and technical terms are compounded, tends far more to fix their *present* meaning in the mind than can be effected by any mere effort of the memory. Mr. Rowbotham's work is necessarily brief, but it contains enough of explanatory comment to remove all difficulty in cases in which it is used for reference. The words derived from the Greek, and those from the Latin are arranged separately, and each collection is classed according to the number of syllables in the English words. To the readers of medical and scientific works such a volume is very useful. An example or two will suffice to explain the plan of illustration which the author has adopted :—

"Atmosphere, *s.*, *atmos*, vapour; and *sphaira*, a sphere or globe.

The body or sphere of air and vapour that surrounds the earth."

"Satellite, *s.*, *satelles*, a life-guardsman, or a yeoman of the guard; an attendant.

A smaller planet which attends and revolves round a large one; as the moon round the earth, or the *satellites* of Jupiter, which revolve about him."

ON THE STATE OF

MEDICINE AND SURGERY IN SPAIN.

By J. PARKIN, *Esq., London, late Surgeon in the British Legion in Spain.*

To the Editor of THE LANCET.

SIR :—Observing in a recent number of THE LANCET, a letter containing remarks on the state of medicine and surgery in Spain, I am inclined to offer a few observations on the subject at issue.

Having been a resident in Spain during nearly two years, and the object of my visit having brought me into immediate contact with the medical practitioners in various parts of the country, I had many opportunities of gaining information on the subject.

It is necessary to premise that, until lately, the profession in that country was divided into three distinct classes,— the physician, the surgeon, and the barber-surgeon. The duties of the two first were similar to those of the same class in this country, excepting that the surgeon is also an accoucheur; while the barber-surgeon, or cirujano sangrados, as he is there called, in opposition to the pure surgeon, or cirujano romanista, was merely the assistant of the two former, performing all the inferior operations of surgery, and many of the duties which, in this country belong to the office of nurse, such as bleeding, applying leeches and blisters, administering enemas, &c. &c. For obtaining the latter licence a short course of study was formerly sufficient; not so, however, in the present day, as they are obliged to pass three years with a practitioner of the same class, or in an hospital, and to attend lectures for *three winters* on anatomy, physiology, materia medica, syphilitic diseases, external affections, and operative surgery. The period for the surgeon and physician is six years. In addition to these there were in the large towns, and particularly among the professors in the different universities, many individuals who practised surgery, and who were at the same time doctors in medicine, having taken out the diploma of physician, as well as surgeon.

The compounding and sale of medicines is entirely in the hands of the pharmaceutists, who have colleges of their own, and pass through a regular course of study before obtaining their licence. They are not only obliged to attend lectures on natural history, chemistry, materia medica, and pharmacy, but they must also possess, together with the medical and surgical student, a degree of bachelor of arts, which, of course, requires a separate and distinct course of study. *

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* At the present moment, when the subject of medical abuses and medical reform is under discussion in this country, it would

From time immemorial the different branches of the art of curing have been governed in Spain by a tribunal called Prato-Medicato, composed, at first, only of physicians, the surgeons and pharmaceutists of that day not being considered men of science. Afterwards, however, when surgery and pharmacy had made greater progress, and when their respective professors had become more learned and scientific, the three different branches separated, and formed three superior governing boards, but which were abolished in 1820, on account of alleged abuses of the powers entrusted to them. The Prato-Medicato was therefore established afresh, but instead of being composed only of physicians, as before, it was now formed of two physicians, two surgeons, and one pharmaceutist. In 1823, however, during the administration of the notorious Colomarde, the above board was again dissolved, and the Royal Board of Medicine and Surgery substituted instead; colleges being also founded for the instruction of a new class of practitioners, created at the same time, the surgeon-physician, or medica-cirujana. By another statute, passed in 1827, it was ordered that the medical appointments in the king's household, in the army, navy, and military hospitals, should in future be filled by the surgeon-physicians alone. This created great complaints among the physicians and surgeons, who thus saw themselves deprived, in a moment, of the principal civil, and all the military appointments, and the doors opened for the admission of a newly-created class, all necessarily young men, and the juniors of the former by many years. After long and repeated complaints, and much angry discussion between the different classes whose interests were thus at stake, Government appointed a commission to inquire into the subject, but as this was only at the period of my departure from Madrid, I am unable to say what has been the result. Little doubt, however, can exist that these injured classes will ultimately obtain redress for their grievances, as justice requires that the privileges of individuals and classes of men should not be rashly interfered with, or abolished without due and proper notice, while the experience of ages sanctions the division of the science into two distinct branches, those of medicine and surgery.

This plan was supposed to have originated with Dr. Castello, the favourite attendant of his late Majesty Ferdinand, and, also of her present Majesty the Queen Regent. The editors of the "Boletin de Medicina," from the first, opposed this unjust and impolitic measure, and argued that it was given to few to excel in all the branches of the science of medicine; for the statute enjoined that the new class of practitioners should not only be educated as physicians and surgeons, but that they should practise both branches at the same time—a provision as unjust to individuals as impolitic towards the public. Had the proposers of the above measure contented themselves with enjoining the same course of study for all medical students, and had they granted the same diploma to all, and allowed the possessor afterwards to choose his own line of practice, much good might have resulted in consequence; as the different orders of the profession would thus have been united in one common band, while the interests of the public would have been consulted by the dedication of individuals to distinct and particular subjects; for, as in manufactures, so in medicine, perfection, it is probable, is only to be obtained by the division and subdivision of labour.

I may now, after the above remarks, pass on to other subjects; and, first, as to the term required before obtaining a licence to practise in the provinces, which, according to Mr. Lambton's statement, is only a year. This is altogether an error, for, instead of one, seven years are required for the surgeon-physicians, six for the physicians, and six for the surgeons; and so strictly is this law enforced that it is not possible for an individual to find employment as a medical man in that country, until the whole of this period has been completed, that of practicante or assistant in the public hospitals alone excepted.

(To be continued.)

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be well take a hint from the Spaniards themselves, and for the profession to urge upon the Legislature, in stronger terms than what has yet been done, the necessity for a reform in the pharmaceutical department of England. In Spain not only is a regular education received in order to obtain a licence to sell and compound drugs, but individuals so licensed are not allowed to prescribe a single dose of medicine, much less visit patients at their own homes, as is the case with us, and this, too, by persons not so well qualified to practise as the Spanish apothecaries. Another excellent regulation is, that no prescription is allowed to be made up by any druggist, unless signed by a member of one of the acknowledged academies, or medical corporations. The consequence is, that quackery is almost entirely unknown in Spain, while the country is preserved from the humiliating spectacle of a coroner's inquest on the credulous victim of some impudent and bare-faced quack, who, *a la* Morison or St. John Long, is allowed to commit murder, not only with impunity, but even under the sanction of the law. It is to be hoped that if the Legislature does not speedily interfere to correct this crying abuse, that the profession will rise as a man, in order to second the able efforts of the Editor of THE LANCET to wipe out this blot from our national escutcheon.

THE LANCET.

London, Saturday, May 12th, 1838.

Sir Henry Halford, whom Mr. Pettigrew has recently "embalmed," by mistake, in a "Portrait Gallery," among the *Promoters of Medical Science* (!) stated, in an "Oration," that the sea-service of this country was much less favourable to longevity than the land-service. It appeared, he said, from returns in his possession, that at Greenwich Hospital, where there are 2710 old sailors, very few died at the age of 80, 90, or 100, while at Chelsea, where there were only 500 old soldiers, deaths at the advanced age of 100 years were not uncommon. But this fact, if correct, is not conclusive, and may admit of explanation without implying any difference in the longevity of the two services. Sir Gilbert Blane has quoted Homer, a much better authority, to the same effect: — "Nothing," says that accurate observer, "breaks a man, however great his strength, so much as the sea."

Ου γαρ εγωγε τι φημι κακωτιρον αλλο θαλασσης
Ανδρα τε συγχεναι, ει και μαλα καρτερος ειη.

This held, no doubt, of Greek triremes. But in the present state of navigation there appears nothing radically inimical to health: the fresh air of the ocean more than counterbalancing any other incidental evils, seamen should enjoy almost as secure a tenure of life as landsmen. This fact has been established by direct experiment. Cook's and Parry's voyages leave little room for doubt on the matter. The summary at the end of this article of the observations already adduced, with one or two additions, will set this in a clear light.

In Cook's second voyage only *one* man died of disease, so that the annual mortality, exclusive of deaths by accident, amounted to .003: and in the second voyage, when 5 died by disease, the mortality was but .006. This was the most successful of the two voyages; as Captain Clarke and Mr. Anderson, the surgeon, were consumptive, one or two of the men were ailing, when the ship sailed, and the voyage was of 4½ years. The mean annual mortality in Parry's first and third voyages in search of a North-West Passage, was also .006. These observations prove, so far as they go, that the mortality in the Navy should not exceed 8 or 10 in 1000 annually. The ages of the great majority of seamen lie between 20 and 40: and the annual mortality at that period in the general population of Sweden, 1821-30, was 11 in 1000. The mortality at the same age of the population in England differs from this inconsiderably. The deaths in the Navy, therefore, should not exceed 11 in 1000; and for a reason that may now be stated, should fall much below this proportion. Ships are never commissioned for more than 3 *years*, they are paid off at the end of the term, and none but *healthy men* are allowed to re-enter the service. This is the *selection* of the Life Offices; and a ship's crew on sailing is in the condition of the holders of Life Policies immediately after they have entered. Now the mortality in Life Offices is exceedingly low in the first year, as we learn from the observations of the *Equitable Society*.

Annual deaths out of 1000 assured between the ages 20—40:—

First year after entering.

Ages.	Lives Insured.	Deaths in the year.	Deaths per 100.
20—30	5550	18	3.2
30—40	7336	25	3.4

Second year after entering.

20—30	4960	45	9.1
30—40	7401	68	9.2

Taking the mean of the series we have for the annual mortality at these ages during two years after proof of health had been given, 6 deaths out of 1000 living. According to this law 3 of 1000 men entered on board a ship Jan. 1st, 1837, would die in the year, and leave 997 alive Jan. 1st, 1838: and 9 would die in the next year, and leave 988 survivors.

The number of deaths at sea by falls in the ship and overboard is considerable; and cannot be overlooked, as accidents of the kind are to a certain extent inevitable. Much depends, however, on the skill and care of the captain in manœuvering the men, and where neither is wanting the annual proportion of deaths from these causes can scarcely exceed 1 in 1000. The influence of some climates can only be partially counteracted. The Western and Eastern Coasts of Africa, the West Indies, the East Indies, and even the Mediterranean, are fatal to the seamen of this country as well as to landsmen. The *Nassau fleet* lost 40 men in a month at Sierra Leone, and the crews of some of the early traders died in uncounted numbers on these destructive shores. Africa, was the field of geographical discovery in the 15th and 16th centuries, and the Portuguese formed settlements on its coasts very soon, but at a dreadful sacrifice of life. VIEYRA declared that,—"If the dead who "had been thrown overboard between the "Coast of Guinea and the Cape of Good "Hope, and between the Cape and Mozam- "bique, could have tombstones placed for "them, each on the spot where he sank, the "whole way would appear one continued "cemetery." The losses of our cruisers on the coast are appalling. The Niger is still inaccessible to British commerce, if we may draw any inference from the late expedition of MACGRIGOR LAIRD. The *Quorra* and *Alburkah* left Liverpool, July 19th, 1833, with 40 picked men in the prime of life (25—35), and arrived at Cape Coast October 9th; Captain HARRIS and 2 men died before the 26th, when they began to ascend the Niger. On the 13th of November only 2 men of 24 left in the *Quorra*, could do duty; on the 18th 2 died, on the 19th 3 died, on the 20th 2 died, on the 21st 3 died. "On "the 5th of December, 7 remained alive, "crawling about the deck more like spec- "tres than men,—

> "A mother had not known her son
> "Amid the skeletons of that gaunt crew."

Of 29 men received on board the *Quorra*, 5 survived, and of 15 in the *Alburkah*, 4 returned to Liverpool 12 months after sailing. Such a decimation is not uncommon. The climate of the West Indies is somewhat less fatal. Sir GILBERT BLANE found that the annual mortality of the fleet in the West Indies had been 14 per cent. down to 1780. The fever, described by Sir WILLIAM BURNETT, is most fatal in the Mediterranean.

This general investigation of the Health of the Navy, of the causes of death, of the rate of mortality, and of the means by which the maritime force of this country has been paralysed, entitles us to offer, with due deference to those especially devoted to the service, some observations on the further improvement of the Health of the Navy. The Art of War has been greatly advanced by the invention of engines to destroy the lives of our enemies; improvements in the art of preserving the lives of our own men deserve to be sought after with equal vigilance, and to be received with, at least, equal favour. It is surely not a matter of indifference whether 800 men can stand to the guns of our "oak leviathans," or whether 50 or 20 or 10 per cent. of their number be stretched out helpless on the decks. The quantity constantly sick may not exceed 20 in 1000, yet as we have seen, from incontestible evidence, 500 in 1000 have been disabled, and vessels in this enfeebled state have frequently fallen a prey to the enemy. It is good policy, then, to watch over the health of the Navy: and the seamen have, besides, irrefragable claims on the country, founded on principles of rigorous justice. In time of war they are impressed: the ships are prisons, the captains gaolers; the men are dragged into

the service by press-gangs, scourged into obedience by the cat, tied up to the mast, or suspended at the yard-arm, whenever they show the least restiveness under the rein of the greatest despot on the seas. The press-gangs in the late wars supplied the victualling gangs with victims; and foul ships, bad biscuits, putrid beef, raised up mutineers to writhe under the lash, and under a savage captain's eye. The most effectual step in the amelioration of the Royal Navy would be the abolition of Impressment: which would be quite unnecessary if flogging were abolished, the men's health, wants, and comforts attended to, if means of instruction were provided aboard, and the *hope of promotion* were held out to merit among all classes. Men would never undertake voluntarily to eat bad biscuits and bad beef with no hope of ever bettering their condition: but if the circumstances in the Navy were made more inviting than in Merchants' Ships, no dread of fighting, or meeting the foe, would daunt the Mariners of England in War.

The Biscuit, now supplied to the Royal Navy, is of good quality. The wheat is purchased by contract, and cleaned, ground, and baked in the Victualling Yards at Deptford and Weevil. It is greatly superior to the biscuit in the Merchants' Service. The allowance is a *pound a day*. The salt beef and pork are supplied from Ireland, At sea each man has ¾ lbs. a day: in port a pound of fresh meat, and a gallon of beer daily. Peas for soup; and flour, raisins, currants, and suet are supplied for puddings. We have heard no complaint of the meat; but it is generally supplied by the same contractors year after year, who should be watched closely, or inferior meat may easily be palmed upon the Navy by a convenient oversight of the Inspectors. A gill of Rum, a few degrees below proof, is allowed daily; and tea and chocolate have been very properly substituted for half of the half-pint of rum formerly allowed. The Dietary may be varied with advantage; it is too uniform; and in long voyages, fresh meat, which can now be so conveniently preserved, should be supplied on two days a week. A limited supply of soft bread may be baked on board; and beer, which appears to have a salutary effect, may sometimes be substituted for rum.

The ventilation and heating of ships is still very imperfect. The air, round the hammocks, is much more impure than in many of the new Factories, where mechanical ventilation has been adopted. Captain PARRY employed a rude but ingenious substitute for the simple stove of Dr. ARNOTT. We put it to the Government whether this talented physician should not be employed to adapt his stove to ships, and to introduce effectual ventilation on board all the ships of the Navy. Of the advantages of this step to the country, no doubt can be entertained; experience, as well as the principles of the apparatus, leave no room for hesitation in pronouncing the boon Dr. ARNOTT has so frankly made public property, worthy of all acceptation. Government, we admit, should be cautious in adopting new schemes, but the value of this invention has been almost universally recognised: it has been advantageously contrasted with the Jerusalem Coffee-house bubble, JOYCE's charcoal *arcanum*, and patent chafing-dish for heating apartments economically and poisoning the inmates *gratis*, with the products of combustion; and has been only assailed in the scurrilous "Railway Times," and in another publication by a ludicrous charlatan.

In the Merchants' Service innumerable lives are lost by shipwrecks, half of which happening on foreign coasts are never noticed in the newspapers. From the lists at Lloyd's it has been ascertained that for 40 years 593 British vessels have been annually wrecked; in 1833 no less than 800 wrecks occurred, or 1 in 30 of the vessels engaged in commerce. And it has been stated on good authority that not more than 200 of the 800 wrecks were inevitable; the greater number being fairly ascribable to the employment of ships not sea-worthy, and to the

gross ignorance of masters.* Merchants have been induced to risk *slop-built* ships by the system of Assurance at Lloyd's, where vessels are classed according to age, and not according to strength and quality. The cargo is as secure in the most miserable hulk as in the best built ship; the rate of assurance being the same at the same age, although a well-built ship of 20 years is more likely to live in a storm than a bad ship the first year it is launched. The Assurance acts as a premium on bad ships. It is well known that down to a late period the first merchants in London *executed* 10 per cent. of the convicts transported to New South Wales, by contract, in decayed vessels: they are not interested in the seamen's lives, and we have reason to fear that they now destroy great numbers engaged in their service. The ships that convey emigrants to Canada, at so cheap a rate, and bring timber back, are of the vilest description: in fact, the emigrants have nearly as good a chance of findin their way to the bottom of the Atlantic as to the shores of America.

Several remedies have been proposed to to meet these crying evils All the vessels and the number of men that nter or leave port are now registered. I would be easy for Government to obtain a list of the names and ages of the men on sailing: to cause the master to enter the deaths, and to transmit a fresh list at the end of the voyage to the *Physician-General to the Navy*, by whom the names, the age, the owners, the builders of wrecked vessels; and the deaths from shipwreck, accident, or disease may be published in an Annual Report, to which we shall advert at another time.

* Statements as to the Proceedings of the Committee for classing the Mercantile Marine. By J. Marshall.

The Mercantile Navy Improved, By James Balingall.

Sea Insurance the Cause of Shipwreck. The Edinburgh Review, vol. LX., p. 338.

MORTALITY IN SOME VOYAGES AT SEA:

[Year of Sailing.	Number on Sailing.	Years.	Years of Life.	Deaths.	Average of Deaths per Cent.
1598, De Wert.....	105	2.02	141	69	49.1
1601, Lancaster	528	.67	319	105	33.0
1615, Schouten.....	87	2.05	182	3	1.7
1627, Nassau Fleet..	1637 (1)	1.76	2521	377	14.9
1740, Anson.....	961	.83	648	626	116.0
1772, Cook	112	3.05	335	(2) 5	1.2
1778, Cook	192	4.63	869	(3) 11	1.3
1819, Parry	94	1.50	140	1	0.7
1821, Parry	118	2.04	236	(4) 5	2.1
1824, Parry	122	1.50	182	1	0.5

(1) 32 deserted; 7 were poisoned by a surgeon; 29 killed by savages and in battle. Mortality, excluding violent deaths.

(2) 4 died by accident; one man invalided.

(3) 6 killed by savages; 5 died by diseases; 1 invalided.

(4) 1 killed by a fall.

INCRUSTATION OF THE VAGINA.—A woman, 60 years of age, had suffered during twenty years from an incontinence of urine. For the last three months she experienced very violent and constant pain in the genital organs, and was at last compelled to send for a medical man, who, on examination, found the external organs of generation excessively swollen, red, and hot, while the insides of the thighs were excoriated, and in many places ulcerated. The external portions of the vagina, especially in the neighbourhood of the meatus urinarius, was covered over with a crustaceous deposit, in the form of crystals, derived from the salts contained in the urine. A cure was readily obtained by attention to cleanliness.—*Med. Zeitung.*

EFFECTS OF THE

VAPOUR OF SULPHUR AND IODINE

IN THE TREATMENT OF

CERTAIN DISEASES OF THE SKIN,

AND OTHER OBSTINATE AFFECTIONS.

To the Editor of THE LANCET.

SIR:—From the well known powerful effects of sulphur and iodine, as remedial agents (even when employed separately) in a multitude of obstinate chronic diseases, it occurred to me that still greater benefit might be accomplished by the employment of them in combination. In the year 1831, while assistant to my esteemed friend J. D. Greenwood, Esq., of Mitcham, a case of obstinate cutaneous disease of the hand was treated by *the dry vapour of sulphur* with success. It had resisted, before it came under that gentleman's care, every other form of remedy, during a very long period. Since that time I have succeeded in several similar and dissimilar cases, which had defied every other known mode of treatment. The results of the employment of this preparation (the ioduret of sulphur) have been such, that I now deem it my duty to lay them before the profession, an object which I purpose accomplishing, Sir, with your permission, by the insertion of some of the cases in THE LANCET. I am, Sir, your most obedient servant,

G. A. WALKER, Surgeon.

101, Drury-lane, May 1, 1838.

CASE 1.

Phagedenic Ulcer of the Calf of the Leg of great depth and surface, cured by the Ioduret of Sulphur in dry Vapour.

A. B., a printer, 44 years of age, residing at ———, Strand, sent for me, Jan. 22, 1838; the general health and conformation appears good, his muscular force is undiminished, and his appetite excellent. He has given up his employment six days; his appearance impresses one with the conviction that he is of a decidedly scrofulous habit; there is a scaly form of eruption on the right side of the face; he has the remains of a large cicatrix above the right wrist, and old indentations above the right elbow.

I found my patient in bed; there was a very offensive gangrenous smell upon entering the room. He complained of great pain in the calf of the left leg, which is the seat of an enormous and extremely irregular ulcer, occupying nearly its middle surface; its transverse measurement is 5½ inches, and 3¾ inches from above to below; the depth is various, in some points more than an inch. About the centre of the hollow of the wound is an irregular tongue, of dark tendinous structure; this slough, although moveable, cannot be detached without violence. Abortive attempts at granulations surround its edges; they are of the size of a split pea, or even larger, flabby, semi-transparent, and lacerable on the slightest touch; these unhealthy points cover the whole of the floor of the ulcer; but, with the exception of those situated near the sloughing, and indeed gangrenous tendon of the gastrocnemeus, they present their convex elevations from beneath a pasty lardaceous exudation which covers them. Near the hardened and irregularly excavated edges of the ulcer, in one or two parts, are smaller and more compact granulations; these occupy detached sites, and are about the circumference of a sixpence.

My patient's history of *his* case is as follows:—Seventeen years since he laboured under and was cured of a bubo in the right groin; shortly after his recovery, and apparently in the enjoyment of excellent health, a small yellow *vesicle* appeared on the inner side of his left leg; the skin being removed, an ulcer of the size of a pea was discovered; this increased rapidly, and at the end of three months was three inches in diameter. During this time *poultices* alone were applied, and small doses of mercury given. Little effect was produced by this treatment; the *outward application* of mercury was had recourse to, and salivation ensued. The *ulcers*, for there was one at the back of the calf of the same description, but not so large or deep, began to improve, poultices were discontinued, chalk dressings, strapping, and rolling followed, and at the expiration of three months more (making altogether six months), he was convalescent. On subsequent occasions the patient was treated for syphilis; pains in the joints and bones frequently attacked him.

Twelve years after the period first mentioned (five years since), small ulcers appeared about the head, with excruciating pains; these being considered rheumatic were allowed to take their course. A weakness and pain in the wrist now became very troublesome, accompanied by a small hard swelling, immediately above the joint; this gradually increasing became inflamed, and softened; it was opened, and the bone was found diseased; exfoliation took place, and the part healed. The period ran through eighteen months; the principal medicine taken was sarsaparilla, in large quantities, yet hard swellings persisted on the head; there were eruptions about the face, and small obstinate ulcers on the arm, of the same character as those on the leg.

In the month of March, 1837, a *pustule*, nearly an inch in diameter, appeared on the outer side of the left leg, to which he applied *poultices* by night and dressing by day. An *ulcer*, 1½ inch in diameter, rapidly developed itself; it had ragged edges, and a hard whitish substance, or core, in the centre. On application at one of the hos-

pitals he was ordered *poultice or dressing*, as best might agree, with occasional fumigations of cinnabar, taking at the same time specified doses of the hydriodate of potash; the ulcer had an improved appearance. In this condition and under this treatment he continued about four months, when a small ulcer appeared on the right side of the leg. (See *fig.* 2.) Poultices and lotions were applied, and the hydriodas potassæ continued; but the first mentioned ulcer rapidly extended (see *fig.* 1), and in the course of a short time presented a surface of alarming dimensions,—as the patient's expression was, he could see it eating its way.

Fig 2

Fig 1

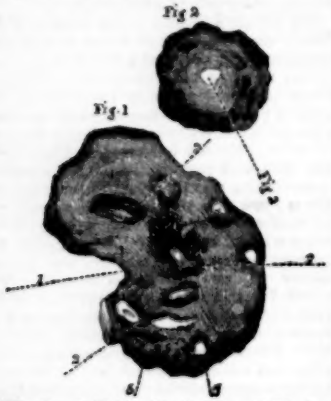

Fig. 1.—1. Projecting tongue of old cicatrisation.
2, 2, 2. Sloughing portions of the ulcer.
3. Length of the ulcer, 5½ inches.
4. Breadth of ulcer, 3¾ inches.
5. Attempts at granulations.

Fig. 2.—Small ulcer, about 2 inches in diameter, on the outside of the leg.

My observations and treatment commence from this date. The extremely irregular form of the ulcer renders it difficult to adopt any mechanical application, whilst the surrounding structure, in a state of rapid ulcerative absorption, could not, with the least prospect of success or even safety, be subjected to the necessary pressure. An unhealthy livid tint surrounded the edges of both ulcers for some inches, threatening, in defiance of any means that might be employed, to involve the remaining structures in the ulcerative mischief. This dark tint is gradually blended with a brighter hue, which ceased at the ankle and dorsum of the foot. The pain is very excruciating.

The most important indication, that of arresting the rapidly spreading ulcerative process, seemed to me would be best fulfilled by the local application of a remedy, which I knew, from the result of previous experiments, possessed greater and more valuable efficacy than any remedial agent hitherto employed.

Jan. 25. The apparatus was employed for the first time, having had some difficulty in obtaining it.

Flowers of sulphur, iii drachms;
Iodine, x grains. Make six powders; let one be used as directed three times a day.

Jan. 28. The pain is relieved; the fetor is no longer present; the edges of both ulcers have lost, in a degree, their livid hue, whilst there is evidently less congestion of the surrounding capillaries.

Flowers of sulphur, 1½ oz.;
Iodine, xxx grains. Make twelve powders; use one three times a day. The granulations in the neighbourhood of the previously indicated ones on the edges of the large ulcer (see *fig.* 1), small and compact, yet too exuberant. Let the following lotion be used:—

Sulph. of zinc, xx grains;
Alum, xx grains;
Water, 1 oz. Make a lotion. Small strips of lint were applied three or four times a day, and oiled silk over the ulcers. As the bowels are confined, let an aperient be taken.

Feb. 3. The granulations are more compact; redder; the dark sloughs at the bottom of the wound are beginning to detach. Several are discharged; there are a number of small detached patches of lymph covering the floor of the ulcers, whilst the whole surrounding edges are rapidly taking on a healthy action. The congested vessels were, as far as possible, emptied by position and strapping, carefully applied from the toes to the tuberosity of the tibia; over this an elastic bandage was applied.

5. Expresses himself perfectly free from pain.

8. The adhesive plaster to be removed from over the ulcers, the outline of which had been marked by a pen and ink; the sloughs are detached, the adhesive plaster and bandage are saturated by a dark, inky exudation, without offensive smell. The granulations fill up a very large proportion of both ulcers.

20. The intermediate period has been employed in checking by astringent applications the too luxuriant granulations; and the employment of an absorbent lotion during the night principally. Remove the adhesive plaster, and let the fumigation be resumed twice a day.

March 1. Continue the powders with an addition of iodine; the granulations are very healthy, but in some places round the edges of the large ulcer too luxuriant; repress them by a powerful astringent as before. The small ulcer is covered by a firm healthy skin, whilst the central cicatrix is completely covered by a strong layer

of coagulable lymph everted round its circumference, and as far as can be observed cicatrisation is nearly perfect underneath.

6. Progressing rapidly; it is difficult to repress the central granulations; the new skin, which has formed with extreme rapidity, is kept covered with strips of lint, saturated in a strong astringent lotion.

Sulphur, 1½ oz.;

Iodine, iii scruples. Make twelve powders; let them be used three or four times a day.

10. To-day he was seen by my friend Dr. Burgess, who expressed his satisfaction at the appearance of the sore.

19. Rapidly improving; repeat the powders.

25. The smaller ulcer is perfectly healed; there remains of the larger a central portion about the size of a shilling, having a perfectly healthy appearance. From the commencement to the termination of the treatment, occupying a period of from nine to ten weeks, I will merely add, that a tonic and occasionally aperient treatment was employed.

ON BLOODLETTING,

WITH REMARKS ON THE

VIEWS OF DR. MARSHALL HALL.

To the Editor of THE LANCET.

SIR:—Permit me to recall attention to certain rules and observations made by Dr. Marshall in his lectures on bloodletting in THE LANCET of last January, as also to those of Mr. Wardrop, quoted in the same lectures, which, inasmuch as they are approved of by Dr. Hall, I shall regard as his own views.

First, then, it is asserted in those lectures,—"That a *large* quantity of blood may be taken away at the *first* bleeding before syncope is produced, whilst, at every succeeding operation, fainting comes on from the loss of a *smaller* and a *smaller* quantity.

Now, as Dr. Hall has invited the co-operation of the profession to establish or correct his views, I take the liberty of simply placing in juxta-position with them a few *facts* which have occurred in my practice in pneumonia.

A few days ago I was obliged to bleed a patient three times in this disease. She was placed at each of these operations in the *erect* posture, and also in each bled to deliquium. The largest orifice was in the *last* operation, and full six ounces more of blood than in the first were abstracted before syncope could be induced. How is this to be explained if Dr. Hall's views, and those of Mr. Wardrop, be invariably correct, viz., that "fainting comes on from the loss of a smaller and a smaller quantity at every succeeding operation"?

Having thus opposed, from actual experience the invariable correctness of Dr. Hall's opinions, I shall next take the liberty of stating that I have seen bad results from complying with his advice in carrying *every* bloodletting (when it is to be instituted) *ad deliquium*, and this especially in pneumonia. The *same patient* who, at the third venesection, manifested so much greater tolerance of loss of blood than at the first or second, I have observed, after a few hours, to sink into the lowest typhoid condition.

Considering, therefore, that Dr. Hall's and Mr. Wardrop's theory is not altogether devoid of error, and that the practice thence derivable, if resorted to indiscriminately, is somewhat perilous, I shall next lay before your readers my own experience as to the effects of bloodletting in pneumonia.

In the *first* venesection I always bleed to incipient syncope, placing the patient in the erect position, and without regard to any relief given to the breathing before the occurrence of syncope. In all *after* bloodlettings, when requisite, I bleed till the pain in inspiration is relieved. If this occur *before* syncope, I am content with the quantity of blood abstracted; if not, I go on until syncope is induced; this is frequently necessary in the second, but I should say scarcely ever in any *subsequent* operation. Of course I must be understood to mean those cases in which the patient has been properly treated in the first instance, *i. e.*, bled *ad deliquium* in the erect posture, at the first venesection, without reference to the pain, and subsequently bled with more reference to the relief of the pain than to the induction of syncope.

When several bloodlettings are requisite, and *the last has been carried to syncope*, the pain in inspiration having been relieved some time *before* the syncope,—in this case I have observed the patient invariably to sink into a typhoid state; but if the pain be not relieved before syncope is induced at any venesection, I go on to syncope, and scarcely ever have unfavourable results. I am, Sir, with great respect for the general tenor of Dr. Hall's opinions and valuable discoveries, your most obedient, humble servant,

CHARLES EDWARDS,
A.B., T.C.D., &c., Surgeon.
88, Winchcombe-street, Cheltenham,
May 5th, 1838.

HÆMATOSIS IN THE INFANT.—Whenever an infant vomits blood the physician should never neglect to examine the state of the nurse's nipples. A child, three months of age, vomited a quantity of blood for several days, without any discoverable cause. At length the mother's breasts were examined, when a large ulcer was found on the right nipple, from which was derived the blood which the infant vomited.—*Zeit. für ges. Med.*

MEDICO-BOTANICAL SOCIETY.

INQUIRIES RESPECTING THE MODE OF ACTION OF THE HELLEBORES ON THE HUMAN BODY, IN GOUT AND OTHER DISEASES.

At the last meeting of the Medico-Botanical Society, a paper with the above title, by Dr. Hancock, was read. The object of the author was to show that the coronopodium of the ancients,—the celebrated anti-arthritic remedy of Alexander and Paulus Ægineta, was a true species of hellebore, one of the natural family ranunculaceæ, and not, as some have supposed, either a veratrum, or one of the colchicaceæ, nor the plantago coronopus. The hermodactyl antiquorum, and our common meadow saffron, are generally considered to be identical; the former, however, possessed little or no purgative property, this having been obtained by its union with other medicines of cathartic power, as scammony, colocynth, aloe, &c.; its emetic action, too, was far milder than that of the meadow saffron, which is a violent emetic purgative, often producing intolerable sickness and distress. Several cases had convinced the author that, notwithstanding the temporary relief colchicum affords in the paroxysm of gout, it is extremely apt, by frequent use, to induce apoplexy.

Led by these considerations to consult the ancient authorities, he had sought for a more safe and efficacious medicine amongst the indigenous plants, and the result completely confirmed his opinions as to the superior efficacy of the hellebore, the identity of which with the coronopodium, was afterwards shown by numerous references and extracts from the writings of Trollian, Alexander, Ægineta, Hippocrates, Gesner, Dodonæus, &c. It would not appear to have been the *white* hellebore (veratrum), as is proved by the violent operation of the latter; besides, it would be absurd to apply the term coronopodium (crow's foot) to a plant having no such characteristic. Furthermore, Paulus recommends purging with black hellebore, or coronopodium, in preference to hermodactyls. The error as to its analogy with the plantago kind is evident, from the fact, that in the plantagineæ there is nothing either of a narcotic or a purgative quality. The only botanist that Dr. Hancock has found to take a correct view of the subject, is Dodonæus, who shows, in very unequivocal terms, that the coronopodium is a true species of hellebore, supposed to be that of Alexander and Paulus Ægineta, and described by Theophrastus as the *elleboras melas*, or black hellebore. It is inferred, then, that the coronopodium is nothing else than what its name denotes in English, *crow's foot*, as taken from the most obvious character impressed on the leaf; and that it is the latter name by which this natural family of plants is now known throughout England, as well as in most other countries. No doubt, then, can be entertained of the fact of its being either a real hellebore, or one of the ranunculaceæ all of which, as Decandolle has observed, are strictly analogous in their medical properties as well as in their botanical characters. Further investigations, the author hoped, would throw more light on this subject; be that as it may, a more valuable remedy in gout could scarcely be found, he presumed, than the helleborus viridis, or helleborus niger, either of which, combined with the root of the aconitum anthora, celandine, senna, and carbonate of soda, has been proved to his satisfaction, to be one of the most salutary and powerful remedies in gout and arthritic diseases, rheumatism, and other chronic disorders.

Dr. MACREIGHT said he should be glad to obtain a substitute for colchicum. He thought Dr. Hancock's paper had pretty evidently established a fact which had never before been mooted, namely, that the coronopodium of Alexander, Trollian, and Paulus Ægineta (found by them preferable to hermodactyls in gout) was either a hellebore, or one of the ranunculaceæ, which natural family, as shown by Decandolle, possesses medicinal properties extremely analogous.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, April 24th, 1838.

Dr. BRIGHT, President.

ON BLACK EXPECTORATION AND THE DEPOSITION OF BLACK MATTER IN THE LUNGS.

By WILLIAM THOMSON, M.D., Fellow of the Royal College of Physicians and Surgeons of Edinburgh.

In a former communication, published in the 20th volume of the Society's Transactions, the author brought under the notice of the Society a number of instances of black discolouration of the sputa observed during life, and of black infiltration of the lungs and bronchial glands, ascertained after death, in persons who from their occupation were particularly exposed to the inhalation of carbonaceous powders, or gases, such as coal miners and moulders in iron works. It being his intention in a *future* communication to state the general conclusions relative to the occurrence of these morbid appearances in this particular class of persons, which seem deducible from the information that has hitherto been obtained, and to point out those circumstances which still require further elucidation, it appears to him that there are several collateral topics to which it is necessary previously to

call the attention of the Society. It is to the discussion of these topics that the present communication is devoted.

The author, in the first place, briefly recapitulates the observations and opinions of authors respecting black sputa and black depositions in the pulmonary organs, previously to the time when the class of persons to whom he alludes began to attract attention, thus taking occasion to show that black deposition may occur in the pulmonary organs, independently of the habitual inspiration of an atmosphere peculiarly loaded with carbonaceous matters.

Among those who have noticed the presence of black matter in the expectoration, the author alludes to Hippocrates, Willis, Morton, Haller, Withers, Portal, Bree, Pearson, Chomel, and Laennec. The phenomenon has been differently accounted for by the several authors who have noticed it; for example, by Morton it has been supposed to owe its origin to a secretion from the bronchial glands; by Morgagni, Haller, Withers, and Portal, to a secretion from the glands of the mucous membrane of the trachea; by Bree, to a secretion from the pulmonary air cells; whilst Pearson and Chomel have regarded it altogether of extraneous origin, as a simple deposit from the atmospheric air. Of the first, or those who have considered the bronchial glands as its source, some have regarded it as a natural secretion of those bodies, while others have considered it as a morbid production. Portal distinguishes three kinds of black expectoration, the first depending on inhalation of carbonaceous matter; the second on a fluid secreted by the bronchial glands; and the third on blood extravasated into the air passages. The last of these alone he considers to be attended with danger. They may be readily distinguished, he says, by subjecting them to the action of boiling water, which dissolves with far less readiness the black product of hæmorrhage than either of the other varieties.

Dr. Bree's opinion of its origin seems to have resulted altogether from the consideration of the phenomena of asthma; but though he denied the possibility of its being secreted by the bronchial glands, he thought it possible that it might, in some instances, arise from the glandules which open into the trachea and bronchi. A like difference the author finds to exist in the opinions held by different authors on the causes of the presence of black matter in the bronchial glands; some supposing it to be a secretion of the glands themselves, and poured by them into the trachea; others assigning to the matter a course directly the reverse, and alleging that it is conveyed from the lungs to the bronchial glands by lympathic absorbent vessels. Of those, too, who have held the latter opinion, some have considered that the carbonaceous matter originates within the lungs, and others that it is introduced into these organs from without. Reisseissen and Soemmering may be mentioned as the advocates of the former opinion, and Pearson of the latter.

The author next enters at some length into the consideration of the causes of the presence of black matter in the *lungs*, detailing in succession the opinions held by Diemerbroeck, Haller, Morgagni, Reisseissen, Pearson, Bayle, Laennec, Andral, Becker, Meriedec, and Fawdington. Of these some, as Reisseissen and Pearson, considered it to depend on the inspiration of minutely divided charcoal, which they supposed to be deposited in the air cells, and thence very slowly absorbed by the orifices of the innumerable lympathic vessels in the air tubes and cells. M. Bayle, on the other hand, regards the black matter met with in the lungs as a product of morbid action, and consequently as generated within the body.

M. Laennec, in his work on mediate auscultation, published in 1819, treats of melanosis of the lungs and black pulmonary matter, as distinct in their nature and effects; his account of the latter corresponding very much with that of Dr. Pearson, to whom, however, he does not refer. According to him we find more or less of the black matter in the lungs of almost every adult, its quantity *generally* increasing with the age of the patient. He believes that the two varieties of black matter may be distinguished not only by their chemical, but also by their more obvious qualities; and remarks, in confirmation of his opinion, that the colouring matter, or melanosis, although it stains the skin black, is very easily removed by washing, whereas the matter expressed from the black bronchial glands takes such a hold of the skin, that if we allow it to dry before attempting to remove it, it remains attached to this texture for several days. M. Andral considers the nature of the black matter to be always the same, the only difference in the appearance produced by it being that, in the case of melanosis, it coexists with an indurated state of the lungs, which is not found to prevail in ordinary discolouration.

In illustration of the part of his paper in which he speaks of the chemical evidence bearing upon the subject, the author cites the experiments of Dr. Henry, page 168, as throwing light upon the subject.

The author, in conclusion, introduces a few cases that have been communicated to him by others, illustrating the occurrence of black expectoration, or of black deposition in the lungs, in individuals whose occupations did not appear to render them peculiarly liable to an accumulation of carbonaceous matter in the respiratory organs, and in whom, at the same time, there existed no traces of a melanotic diathesis.

Two other papers were also read, the abstracts of which we have not room for. One of these papers detailed a case of *Pes Equinus successfully treated by Dr. Krauss, by Division of the tendo-Achillis.* Respecting the mode which Dr. Krauss employed for procuring extension, in answer to questions from various Fellows, he said, that his instrument consisted of a foot-plate and two lateral pieces passing to the knee, with joints corresponding to the ankles; each of these lateral pieces consisted of two parts joined by screws, so that different inclinations of the foot-board might be made according to circumstances. The foot was fastened to the foot-plate by means of simple straps, and extension of the foot brought about by means of two straps going from the further end of the foot-plate to the superior ends of the lateral pieces of the leg. In consequence of there having been slight contraction of the muscles at the kneejoint in the case related to the Society, it was found necessary that the instrument should be continued from the knee to the hip, on the outer side of the thigh, and fastened by means of a pelvic band; the instrument on the inner side was carried only as far as the upper third of the thigh, and was attached to its outer fellow by a half circle of iron passing under the thigh. At the outer side of the knee a screw was attached between the portions of the apparatus of the thigh and leg, so that the kneejoint might be inclined to various angles. He had performed the operation in a number of other cases, and never had any unfavourable result, except in one instance, that of a patient twenty-one years of age, and in this case an abscess occurred in the seat of the wound; this, however, soon healed, and a proper cure was effected, though the substance between the divided tendon was more than usually thin.

MEDICAL SOCIETY OF LONDON.

May, 7th, 1836.

REMEDIES IN INTUSSUSCEPTION.

In a discussion, at this Society this evening, on intussusception, Mr. Hooper, related a case, in which all the symptoms of this affection were removed by the injection of a large quantity of gruel by the rectum. Dr. Bennett, had seen this plan pursued in several cases with success. Mr. Dendy had seen a case in which the administration of fluid quicksilver had been of apparent temporary benefit, but the patient eventually perished. Mr. Hooper said, it was tried in his case, but without any effect. Mr. Linacre recollected the case of an old gentleman who laboured under all the symptoms of an intussusception, which resisted all means of relief. Mercury in a fluid state was at last administered in a dose of a pound and a half. In four hours after it was taken a large evacuation took place; the quicksilver was contained in the motion.

UNIVERSITY COLLEGE SOIRÉE,

April 25th, 1838.

ON INTENSE COLD, AND THE SOLIDIFICATION OF CARBONIC ACID BY THILORIER'S APPARATUS.

By Professor Graham.

Professor Graham described Thilorier's apparatus as a new physical instrument of great interest and value, and most commodious and simple in its application, in which carbonic acid gas is liquefied by great pressure, and the liquid accumulated. The instrument is likewise so contrived that the liquid may be allowed to escape into the atmosphere, and produce by its evaporation a degree of cold which has never been hitherto approached, and of which an incidental and altogether unlooked-for effect, is the freezing of the liquefied gas itself. It is a *frigorific machine*, the counterpart of the furnace, and susceptible of its appropriate applications in the laboratory. It consists of two hollow cast-iron cylinders of great strength, each about a gallon and a half in capacity, which can be connected with each other by a tube and stopcocks. To charge the apparatus 3½ lbs. of bicarbonate of soda, and 8 lbs. of water, at 100°, with 2 lbs. of sulphuric acid, are introduced into the generating cylinder, and the acid allowed to come in contact with the soda after the vessel is closed; the gas evolved is afterwards allowed to escape into the second cylinder or the receiver, where it condenses into a liquid from the enormous pressure to which it is subject; and by repeating the charge seven times, no less than a gallon of liquid carbonic acid is collected in the receiver. To produce cold and freeze the carbonic acid, a little of the liquid is allowed to escape by a jet and stop-cock from the lower part of this magazine, into a round tin box, pierced with small holes, by which the gas escapes, while the solid is retained. Two-thirds of the liquid generally evaporate as gas, cooling the other third so low as to freeze it. Hence the cold is produced by the evaporation of the highly volatile liquid carbonic acid, relieved from the enormous pressure necessary to preserve it in the liquid form. The pressure necessary to liquefy the gas is thirty-six atmospheres at 32°, and it increases one atmosphere for every degree and a half above 32°.

The solid carbonic acid has exactly the appearance of snow, and possesses the low conducting power of that substance, so that it may be handled, or even placed upon the tongue without danger; and a mass of it

may be preserved for some minutes before it is entirely dissipated as gas. When used to cool other bodies it is mixed with a little ether, with which it forms a soft mass like half-melted snow, which evaporates rapidly, and freezes quicksilver in a few seconds when laid upon it. The freezing point of that metal is 39° under zero, a temperature which is experienced in severe winters at Quebec. The lowest temperature observed by Captain Parry at Melville Island, was 55° under zero, and by Captain Ross, during two winters in the Arctic regions, 60° under zero, which may be considered as the greatest possible natural cold, seeing that to account for the equillibrium of the earth's temperature, it has been found necessary to assume that the planetary space in which the earth moves has a temperature of not less than 58°. The greatest cold artificially produced by Walker was 91°, but with great difficulty, by mixing snow and dilute sulphuric acid together, themselves previously cooled to 68°. But Thilorier estimates the temperature of the solid carbonic acid so low as 148°, and he cooled a spirits of wine thermometer, by means of the ether mixture, so low as 135°, without freezing the spirits.

The vast superiority of Thilorier's over other processes for producing cold is, at once seen on comparing them. The receiver filled with the liquid carbonic acid, may be kept for weeks or months without loss or detriment to the carbonic acid; for this frigorific agent is not like ice which requires particular precautions to preserve it. It may be used afterwards at any season of the year, and be applied in small or large quantity according to the object in view. The mode of its application, how simple, when compared with the operose and difficult methods formerly practised; there is little more trouble than in lighting a lamp to produce heat. The most serviceable of the old processes, that of Walker, required snow, and could not therefore be practised at all times. Its maximum effect in ordinary circumstances, was the freezing of mercury. It afforded merely speculative results below that temperature, and could not be applied to any practical purpose. But Thilorier's apparatus enables us to expose bodies to a temperature 100 degrees lower, and has greatly enlarged our conceptions of the extent of the descending scale of heat. The degree of cold which it produces is as much *below* the ordinary temperature of the air, as the boiling point of water is *above* it. It possesses all the simplicity and efficacy of a great invention, and is certainly one of the most important instruments of research which have been presented to the cultivators of physical science for many years.

No effect of the extraordinary cold which it produces is more remarkable than the solidification of carbonic acid itself. That this gas, or fixed air, so familiar to us from its occurrence in a variety of circumstances, should not only be reduced to the state of a liquid, but should also present itself as a solid of an appearance so beautiful and strange, is truly astonishing. Who can now entertain a doubt that *air itself* is but the vapour of a volatile liquid. We may yet have air presented to us in the solid form, like carbonic acid. M. Thilorier is at present engaged in constructing an apparatus of prodigious strength, by means of which he hopes to effect that object.

The properties of carbonic acid in the liquid form, which have been carefully studied by Thilorier, are of the most curious nature. It differs from all ordinary liquids in its excessive dilatability by heat. When heated from 32° to 86°, or 54 degrees, 20 volumes of the liquid become 29; an increase of nearly half its bulk, *and four times greater than that of air itself*, for the same increase of temperature. The specific gravity of the liquid varies between these temperatures, from 830 at 32° (water being 1000), to 600 at 86°. It is insoluble in water (or the liquids are not miscible), but soluble in all proportions in alcohol, ether, oil of turpentine, and sulphuret of carbon.

The experiments were exceedingly interesting. A great deal was formerly thought of the liquefaction of carbonic acid gas by Faraday: but here it was produced in the solid form, and thrown about the theatre in large masses, which had all the appearance of snow-balls. The substance felt like snow in the hand. Mercury was frozen, and bent like lead. The *carbonic acid snow* melted and evaporated slowly. This was shown by collecting the liberated gas in an inverted jar of water.

We have rarely seen a lecture excite so much interest; in fact it would be difficult to find experiments of so much intrinsic interest, and at the same time so astonishing. Fixed air converted into snow! Priestley himself would have called this a miracle.

BRITISH MEDICAL ASSOCIATION.

Meeting of Council, April 10, 1838.

The minutes of the last meeting having been read and confirmed, the following gentlemen were admitted members of the Association:—

Samuel Procter, Esq., Salisbury-square.
John Simmons, Esq., Tooley-street.

A letter was then read from Mr. Jonathan Toogood, of Bridgewater, dated March 16, relative to evidence of witnesses before the House of Commons, and also alluding to the appointment of the parochial surgeon of that Union. Letters were also received from Mr. Ceeley, of Aylesbury, and Dr. Wilmot, of Stroud, relative to the Poor-Law

question, which were referred to the Poor-Law Committee for consideration.

The PRESIDENT said he had received a communication from Mr. Heyward, of Egham, respecting the remuneration of parochial medical officers, which was also referred to the Poor-Law Committee.

It was moved, and carried unanimously,—"That a deputation from the Council should wait upon Mr. Warburton, M.P., and request him to continue the publication of the mass of valuable medical evidence taken before a Committee of the House of Commons three years ago, and which is indispensable towards forming correct opinions as to the details of any legislative measure for accomplishing a reform of the existing medical laws."

The following gentlemen were then named as the deputation:—Dr. Webster, Dr. Grant, Mr. Farr, Mr. Hilles, Mr. Davidson, and Mr. Wagstaffe.

It was also resolved,—"That Mr. Warburton be requested to present the petition against the Copyright Bill, now before the House."

A letter was read from Mr. Rumsey, of Chesham, approving of the suggestions of the Poor-Law Committee, which had appeared in THE LANCET.

Meeting of Council, May 8.

The minutes of the last meeting having been confirmed, the following gentlemen were admitted members of the Association:—

John Bartlett, Esq., Burbage-Pewsey, Wilts.

Dr. G. Fearnley, Dewsbury, Yorkshire.

Dr. Baker, Hoxton, London.

A communication was read from the President (unavoidably absent), wherein he stated, that he had received a donation of five guineas for the Society, from the late Dr. Harrison, of Holles-street, Cavendish-square.

It was moved, seconded, and carried unanimously—"That the deputation named in the foregoing abstract, do *again* wait upon Mr. Warburton, M.P., to urge him to have completed the printing of the evidence on medical education and practice, taken before the Parliamentary Committee."

Dr. HULL moved, and Mr. BRADY seconded, a motion,—"That a public meeting of the medical profession be called, to take into consideration the subject of the Poor-Laws, so far as they relate to the medical officers of Unions." Carried unanimously.

Mr. CRISP moved,—"That the arrangements for holding such public meeting be left to the Sub-committee on the Poor-Law question." Carried unanimously.

It was resolved unanimously,—"That Mr. Wakley, M.P., be intrusted with the presentation, to the House of Commons, of the petition of the Association, praying for the establishment of a TRIPARTITE NATIONAL FACULTY OF MEDICINE in these Kingdoms."

The meeting was gratified with the presence of Drs. Phelan and O'Brien, the former of whom stated, at some length, the object of the Irish Medical Charities Bill; and called on the Council of the Association to assist in some important inquiries which he (Dr. P.) was now making, relative to the number of sick persons whom a medical man could, with propriety, undertake to attend professionally, in the course of a stated period. The meeting, which was well attended, then adjourned.

UNIVERSITY COLLEGE HOSPITAL.

GUN-SHOT WOUND OF THE SCAPULA—REMOVAL OF A PORTION OF BONE BY TREPHINING.

E. G., admitted April 11th, under the care of Mr. Liston. Fourteen weeks since a pistol was fired at her, producing a wound the size of a shilling upon the shoulder, attended with a sensation of numbness. An examination was made by a medical man, but no foreign body was discovered; the person who fired the pistol, however, considered that it must have been loaded with a bullet, and the girl was certain the bullet was lodged in her shoulder. Poultices and other dressings were applied up to the time of her admission, when a small sinus existed behind, and to the outer side of the acromion. On examination with a probe Mr. Liston felt a foreign body, as he then supposed, beneath the spine of the scapula; the original opening was enlarged, and the bullet, which was found imbedded in the bone, was attempted, but without success, to be dislodged by the elevator. The trephine was then employed, and a portion of the root of the acromion removed, from which the bullet was extracted by a pair of slender forceps. The wound has been proceeding favourably up to the present time under the use of simple dressing, and no exfoliation has taken place.

GUN-SHOT WOUND OF THE ABDOMEN—FORMATION OF AN ARTIFICIAL ANUS—SLOUGHING OF A PORTION OF INTESTINE.

C. P., aged 23, was admitted Feb. 5th, under the care of Mr. Liston. He is a bricklayer, of intemperate habits, but generally in the enjoyment of good health. Five weeks since, while intoxicated, a loaded gun, which he was holding by the barrel, with its muzzle turned towards his abdomen, exploded, and its contents entered the abdomen in the left lumbar region, in the situation of the linea semilunaris, and in a line with the crista ilii. The shots, which were of No. 2 size, passed out posteriorly, exactly opposite the part where they had entered. He was taken home and bled

from the arm to twelve ounces; poultices, and afterwards evaporating lotions, were applied to the wound; low diet was prescribed, with purgatives, to remove a constipated state of the bowels. From the account which he gives it would appear that a good deal of fever supervened. Poultices were again applied in place of the cold lotions and tonics, and generous diet administered. In about a fortnight after the receipt of the injury a portion of intestine, most probably the descending colon, which could from the first be perceived in the posterior wound, sloughed. The fæces have ever since passed by the artificial channel thus formed, only one evacuation by the anus having since taken place; this occurred on Friday last. A portion of the crista ilii which had necrosed was removed, and lotions of chloride of soda or lime employed.

Present Symptoms.—The anterior wound is nearly closed; the posterior wound, at its upper border, is about four inches in circumference, but at the inferior portion not more than one and a half or two inches; it is about an inch and a half in depth. In the upper half of the wound the bowel can be perceived, which, when he coughs, descends, looking very vascular and villous. Portions of necrosed bone occupy the bottom of the wound, and a granulating healthy surface, from which a quantity of pus exudes, appears at the inferior part. The hectic fever has much subsided. There is an opening caused by evacuation of matter in the back, from which there is a slight discharge.

7. Mr. Liston examined the wound this morning, and removed two portions of necrosed bone, each of the size of a small bean.

12. His health is improving. He has passed two motions per anum, one last night, the other this morning. There is still a discharge of fæces by the wound.

14. A small portion of necrosed bone removed; the wound looks well.

19. Mr. Liston removed another portion of necrosed bone to-day, and ordered the application of a conical compress for the purpose of preventing the protrusion and eversion of the bowel.

21. Complains of great pain in the abdomen, headach, &c. To have a dose of castor-oil.

22. Has passed a motion by the natural passage, and several by the artificial channel. He is again free from pain, and comfortable.

28. The pad was discontinued in consequence of the pain and inconvenience it occasioned. There has been no evacuation by the rectum since the last report.

March 1. Yesterday there was a motion by the natural passage. The wound is much lessened by the granulations at its inferior part.

5. Has had a small evacuation daily, the last two days, by the rectum.

8. Another evacuation, greater in quantity, passed by the rectum; the wound is about half its original size.

12. Another motion naturally. The compress to be again employed.

16. A motion both yesterday and to-day by the rectum. The wound is much circumscribed; the bowel protrudes very much, and there is great eversion of it.

22. Passes a motion by the rectum every day.

April 2. A daily motion passes by the rectum. A small quantity of fœcal matter still comes from the wound.

16. Has been improving since last report, but very little fœcal matter now escapes from the artificial opening, and he was discharged, being in a fit state to resume his employment. The patient is to return occasionally, and it is in contemplation, should the opening not close naturally, to cover the void by a portion of borrowed integument.

SEVERE CASE OF SYPHILIS.—VALUE OF SARSAPARILLA AS A REMEDIAL AGENT.—HINTS FOR ECONOMISING THE QUANTITY USED.

W. B., aged 27, was admitted Oct. 25, 1837, under the care of Dr. Elliotson. He is a barrister's clerk, of nervous temperament and delicate health, and addicted to every kind of irregularity and excess. After 15 years of age he contracted eight or nine successive gonorrhœas, and at the same time had sores on the penis and stricture, of which he was perfectly cured. Nearly two years ago a swelling made its appearance in the groin, and suppurated. There was no chancre at this time, but an eruption of dark red spots over the body; no sore throat, or pains in the bones. He was salivated twice to a great extent, under which treatment the sore in the groin healed, but ulcers appeared on the back and arms, and ulceration attacked the alæ of the nose. The mercury was discontinued, and by means of sarsa and mercurial fumigations the ulcer of the nose healed. He was getting better, when he found himself unable to walk from weakness of the ankles, followed by a contracted state of the knees. At the same time he had severe pains in the bones; a node formed on the ulna, and a portion of the bone exfoliated. His health in general was much deteriorated. Under the use of quinine and iodine his health improved; he had some power of the lower extremities, but the knees continued incapable of being extended. Three months ago the pains in the bones left him, and then first appeared, under the thigh, a scaly eruption, which on desquamating left an excavated ulcer; from this there was a watery discharge, which concreted into a scab. The general health has since improved. At the time of his ad-

mission he was taking no medicine, with the exception of morphia at night.

Present Symptoms.—Great emaciation, and inability to walk or stand from the permanently flexed state of the knees. On the face, thighs, and legs there are large prominent scabs, slow in forming, attended with itching, but with little pain or redness. The eruption is at first scaly, the scales desquamate, and leave an ulcer on a level with the surrounding skin, discharging purulent matter, and forming dark-coloured prominent scabs; appetite good; no thirst; tongue clean; bowels constipated; urine high-coloured; respiration natural; pulse 90, small and soft. Dr. Elliotson said it was necessary in this case to support the patient well; he was allowed a pint and a half of porter, with meat daily. Half an ounce of the concentrated syrup of sarsaparilla was given three times a day, and a grain of opium every night. Under this treatment he soon began to improve, and on the 19th of December, the sarsa was omitted, and an ounce and a half of compound infusion of gentian substituted for it. The improvement continued till the 6th of January, on which day he caught cold, and was seized with catarrhal symptoms; the eruption became aggravated, and inflamed. The porter, meat, and gentian were now suspended; he was placed on low diet, and salines prescribed; he took a warm-bath daily. On the 13th, he was sufficiently well enough to again proceed with the gentian, but though he continued to take it from the 13th to the 20th of January, he did not experience any benefit from it, and at the latter date the sarsaparilla syrup was again commenced in the original doses, and continued it to the 6th of February. The eruption soon improved, the strength increased, and the marks of benefit were in every way demonstrated. The sarsaparilla was omitted on the 6th, and he merely took a grain of opium every night at bed-time.

April 24. Has been getting stronger and better every day since last report; the sarsaparilla has not been repeated. He was discharged tolerably well to-day; his legs are, however, slightly contracted in consequence of sores, for which he is using mechanical means with advantage.

In lecturing on this case, Dr. Elliotson observed, that where mercury had been taken in improper quantities for the cure of syphilis, it was not uncommon for a state of constitution, like that observed in the present instance, to be brought on. In these cases sarsaparilla was often a very beneficial medicine, and the concentrated syrup was one of the best forms in which it could be used; the stomach was less likely to be disordered by this preparation than it was by large doses of the decoction. In this case in a very few days the improvement in the general health was very remarkable, and as the influence of sarsaparilla goes on after it has ceased to be taken (if continued for a certain time), he Dr. E. substituted the infusion of gentian for it, the patient still proceeding favourably; the occurrence of the catarrh, however, completely interfered with the action of the sarsaparilla; for on the gentian being again commenced after the catarrh was cured, it had no beneficial effect on the disease; immediately, however, on the sarsaparilla being renewed, the improvement in the health of the patient again went on, and though the latter medicine was left off entirely for several weeks before he left the hospital, its influence on the system still continued, as was proved by the gradual but steady return to health. He, Dr. Elliotson, was quite satisfied that sarsaparilla was much wasted. It was given in many cases for which it was not suited, and even in cases where it was administered with advantage, it was continued in almost every instance a great deal longer than was required. Sarsaparilla not only was given in cases where it did no good, but occasionally in diseases which it rather tended to aggravate; thus it was sometimes given in the form of decoction for the relief of dyspepsia, with the effect, however, of considerably increasing the disease. It was given, too, as a cure for rheumatism and syphilis, conjoined with mercury, which did not require its aid, for in most cases in which these two remedies were administered together, the same amount of benefit would result from the use of the mercury alone. He had, before the present case, remarked, that if sarsaparilla was given to a certain extent, and then left off, its action, like that of mercury and some other medicines, would still go on in the system.

A PIN IN AN EGG.

To the Editor of THE LANCET.

SIR:—However easily physiologists may account for the following fact, perhaps *none* have witnessed a similar event. This morning a scientific gentleman, the surveyor of this county (Tyrone) favoured me with his company to breakfast. Part of our fare consisted of fresh hen eggs, in the yolk of one of which my guest found a common pin, which appears to have undergone very little change, excepting of its lustre. We had previously observed that the shells were perfect. I send you my name and address in a private note, and I have the honour to Sir, your obliged servant,

AN OCCASIONAL READER.

Feb. 12, 1838.

COMPLAINT AGAINST DR. MUNRO.

To the Editor of THE LANCET.

SIR:—As THE LANCET is a most useful work of *correction* I have taken the liberty of troubling you with this note relative to an expression which was applied by the Professor of Anatomy in this University to a young gentleman attending his class, to the astonishment of all who heard it. The expression was "impertinent rascal," used by Dr. Munro, a professor who is generally considered not to be so polished as his colleagues, but one who ought to be better acquainted with the "rules of polite society." A young gentleman was speaking to his companion, and when Dr. Munro accused him of doing so the youth denied it, and was thus addressed by the doctor in an instantaneous loss of temper. As an attendant on his class this session I have thought proper to notice this affair, as it was an insult to the whole class, one of whom was addressed in such an ungentlemanly manner by a functionary holding so high a situation. An older student he probably would not have so addressed. I am, Sir, your obedient servant,

A. U. R.

Edinburgh, April 7th, 1838.

CIRCULAR ON THE MEDICAL CONTRACT SYSTEM.

To the Editor of THE LANCET.

SIR:—I am requested by the medical officers of the Edmonton and the adjoining Unions, to beg you will favour them by the insertion of the following "circular" in your highly esteemed weekly periodical as early as possible, inasmuch as it concerns the vital interests of the licensed general practitioners throughout the kingdom. I have the honour to be, your obedient servant,

J. WATKINS.

Cheshunt, Herts, May 8th, 1838.

CIRCULAR.

A meeting of general practitioners in medicine, residing in the Edmonton and adjoining Unions, comprising parts of Middlesex, Essex, and Herts, was held at the Angel Inn, Edmonton, on the 19th of April, when the annual recurrence to medical contract by tender, practised under the New Poor-Law Act, was amply discussed, and it was unanimously agreed, that the principle was prejudical to the best interests of the medical profession, and of the poor upon whom, under the provisions of that act, they are called upon to attend. It was resolved to petition Parliament on the subject, and that the following resolution constitute a principal prayer in the petition:—

"Resolved,—That from the operation of this principle of an unfair competition, your petitioners are obliged, in order to keep their own practice from being injured by adventurers in medicine, to offer tenders below the value of the services required of them, and thus incur an annual expenditure disadvantageous to their families."

Another meeting was held at the same inn on the 3rd of May, when the petition being numerously signed, it was resolved,—That the members for the counties of Middlesex, Essex, and Herts, be requested to give their support to the prayer of the petitioners, and it was presumed, by giving publicity to the proceedings of their meetings, the attention of the medical profession generally would be directed to the subject.

DEATH OF A CHILD FROM THE ADMINISTRATION OF SYRUP OF POPPIES.

ON Friday week, an inquest was held on the body of an infant, five months' old, who died on the Tuesday previous, in consequence of having had administered to it a quantity of syrup of poppies. The mother of the deceased stated that on Monday evening her infant was very cross, and she thinking it would do it good to give it a little syrup of poppies to cause sleep, went to the shop of Mr. Sheldon, druggist, Vauxhall-road, and asked for a pennyworth. She did not say what she wanted it for, but Mr. Sheldon asked if she had not a cross child, and on receiving an answer to that effect, he gave her some in a cup, and said she might give about the half of it to the child. Mr. S. knew the age of the infant, from the witness being in the frequent habit of visiting his shop on the same errand. On returning home witness gave the deceased about three teaspoonsful of the syrup, which was rather better than half of the quantity given her by Mr. Sheldon. About half an hour after taking the medicine the deceased fell asleep, and in about an hour afterwards awoke apparently in great agony. The mother immediately went and acquainted Mr. Sheldon with the state of the child, and he told her to put it in a warm bath. This she did not do, as she was advised to the contrary. She then went a druggist's in Leeds-street, and acquainted the proprietor of what she had given the child, and its condition, and he gave her what he called a vomit, with directions to administer two teaspoonsful, and continue to give a teaspoonful every five minutes. This was done for some time, but without effect. She then took the child to the Dispensary, and showed it to one of the surgeons, who said it was past recovery.

After having heard medical evidence the jury returned a verdict to the effect that,

"The mother of the deceased, intending, by the advice of Ralph Garnet Sheldon, druggist, to give the deceased a small quantity of syrup of poppies, as a medicine, did, casually and by misfortune, and against her will, give to the deceased, a larger quantity of the said syrup of poppies, being a deadly poison, from the effects of taking which he died, which death was caused casually and by misfortune, not otherwise."—*Morning Paper.*

This case illustrates one of the numerous evils produced by the habit, which is daily gaining ground, of druggists practising medicine "across the counter." We do not mean to attach any blame to Mr. Sheldon in the present instance, but we cannot refrain from remarking, that if druggists will sell dangerous medicine by the pennyworth, they should adopt Hannemann's method of practice.

PRESERVATION OF VACCINE MATTER.—Two French medical men, MM. Boissonneau and Rey, assert, that if the vaccine matter loses its power in glass tubes, it is because the glass itself is a matter susceptible of being altered by external causes, and that they have succeeded in manufacturing an inalterable glass by substituting metallic substances for the alkaline salts contained in common glass.

TORTICOLLIS.—In cases of torticollis of old standing, M. Jules Guerin divides only the sternal portion of the cleido-mastoid muscle. His mode of operating is attended with perfect success.

VESICO-VAGINAL FISTULA.—M. Jobert has lately repeated his operation for vesico-vaginal fistula, with success, at the Hôpital St. Louis. Of seven women operated upon, three were perfectly cured, three remained unrelieved, one died.

WORKS RECEIVED.

The Various Inflammations of the Conjunctiva, or Mucous Membrane of the Eye. By J. Slade, M.D. Parbury and Co. London, 1838. 8vo, pp. 120.—[A description of external inflammations of the eye, written in rather a popular style, which may be consulted with advantage.]

An Essay on the Antiquity of Hindoo Medicine. By J. F. Royle, M.D. Allen and Co. London, 1837. 8vo, pp. 196.—[A learned essay, which contains a variety of curious information.]

The Stomach in its Morbid States; being a Practical Inquiry into the Nature and Treatment of Diseases of that Organ, &c. By Langston Parker, M.R.C.S. Longman and Co. London, 1838. 8vo, pp. 303.

Physical Education, or the Nature and Management of Children. By Samuel Smiles, Surgeon. Oliver and Boyd. Edinburgh, 1838. Small 8vo, pp. 200.

Medicine and Surgery one Inductive Science, &c. &c.; being an Introduction to a System of Surgery. By George Macilwain, Surgeon to the Finsbury Dispensary. Highley. London, 1838. Large 8vo, pp. 551.

A Treatise on Some Nervous Disorders, &c. By Edwin Lee, M.R.C.S. Second Edition. Churchill. London, 1838. 8vo, pp. 176.

An Experimental Inquiry into the Physiology of Cutaneous Absorption, and its Application to Therapeutics. By William Herries Madden, M.D. Carfrae and Son. Edinburgh, 1838. 8vo, pp. 151.

An Essay on Children and Mesenteric Obstruction, Atrophy, or Marasmus. By A. L. Pearce, Surgeon. Sherwood and Co. London, 1838. Small 8vo, pp. 226.

Velpeau's Anatomy of Regions, translated from the French. By Henry Hancock, Lecturer on Anatomy. Longman and Co. London, 1838. 8vo, pp. 556.—[A work which well deserves the patronage of the profession.]

On the Functions of the Cerebellum; translated from the French. By George Combe. Machlachlan and Stewart. Edinburgh, 1838. 8vo, pp. 339.

The Physiology of Digestion considered with relation to the Principles of Dietetics. By Andrew Combe, M.D. Machlachlan and Stewart. Edinburgh, 1837. Small 8vo, pp. 332.

The Alternative; Disease and Premature Death, or Health and Long Life. By Joel Pinney, Esq. Highley. London, 1838. 8vo, pp. 216.

TO CORRESPONDENTS.

A Naval Surgeon. They are *not* permitted, unless they were in practice before August, 1815.

How could *Amicus Justitiæ* expect us to publish libellous statements, to which he did not, even in confidence, append his name as an authority.

Jurenis. Our observation appended to Mr. Scott's letter, referred to the effect of gastric juice, not contained in the stomach, but employed simply as a chemical solvent. We are not aware that any experiments of the kind alluded to have been performed, and as we regard the action of the gastric juice to be a vital one, we are inclined to think that its powers as a chemical solvent are extremely limited.

The letters of *Dr. Davies*, *Mr. Jenkins*, and other Correspondents, have been received.